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# THE JUNIOR COLLEGE JOURNAL

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## Unless You People Rise to the Occasion

[EDITORIAL]

"UNLESS YOU PEOPLE RISE TO THE OCCASION . . . "\*

These words should confront every junior college educator every day of this school year and be a constant reminder of the challenge facing junior college education today.

Imagination is required to create new learning situations that will give youth the training that is necessary for them. No longer can the junior college continue in the path set by tradition and remain a parallel institution to the senior college or university. If all youth are to be served by means of a post-high-school educational institution until they can be absorbed by industry or create their own jobs, then worthwhile experiences must be devised that will employ their talents, thoughts, and energy to the fullest extent.

Three recent pronouncements are of utmost significance to leaders interested in organizing these new experiences: *The Purposes of Education in American Democracy* by the Educational Policies Commission of the N. E. A., *What High Schools Ought to Teach* by a special committee headed by Superintendent Graham for the American Youth Commission, and *They All May Learn* by the Im-

plementation Committee of the Secondary School Principals Association. These might well serve as the springboard to action.

Leaders in community organizations must be secured to cooperate in organizing educational programs of a work-study type that will not only benefit the young people but will also contribute to the general welfare of the community. Work situations to improve civic conditions are plentiful in every community. If these young people need discipline, then a vigorous work-study program should be designed that will produce youth disciplined in mind and body. Far too long have we allowed youth to develop slipshod habits of work and study. Present conditions call for good habits acquired through intensive effort. The pill of learning need not be bitter, yet it should not have its sugar coating too thickly applied.

Significant contributions to the solution of youth education problems should come from the Commission on Junior College Terminal Education and also from the report of Past President Byron S. Hollinshead of his survey of junior college practices. These contributions will be in vain, however, unless each junior college instructor and administrator uses the implications of these reports to develop the type of program

\*From an address by George F. Zook, President, American Council on Education, to the American Association of Junior Colleges, March, 1940, Columbia, Missouri.

needed in his particular community. For example, departments of agriculture, home economics, industrial arts, and civics can cooperate to develop programs of work that will change unsightly buildings, lots, dump heaps, weed patches into beautiful landscapes. Thus civic improvement may lead to civic pride and better citizenship.

Guidance, since the very beginning, has been listed, talked about, and written about as one of the major functions of the junior college. It is clear that guidance is essential, yet few programs have progressed much farther than the "objectives" stage. If guidance is to operate in a functional manner so that each youth may be benefited in terms of his aptitudes and capacities, then guidance programs must become a reality.

The Federal Government, educational foundations and organizations are subsidizing leaders in the field of youth education that they may study and analyze the present status and make suggestions regarding the solution of the youth problem. All of these attempts will come to naught unless the individuals responsible for the operation of each institution and its learning situations exemplify leadership, imagination, vision and courage to put the new programs into actual operation. The foundations and educational organizations might find that small grants in aid to subsidize a few courageous and far sighted educators who are doing significant work in civic improvement, work-study programs, guidance programs and the like, would pay big dividends toward finding the solution to the problems of youth.

The junior college, private and public, and the extended or post-graduate division of the high school need to define their areas of service. In general, any one institution cannot be all things to

all people. The private junior college, if it is to survive, must define its area of service, devote its energies to the attainment of a limited number of goals, and be able to point with a certain amount of pride to its finished products.

The public junior college or the extended or post-graduate division of the high school has a much greater responsibility, inasmuch as it must serve the vast majority of the youth of the community. In these days of ever mounting costs of government, the public will find it easier to reduce local than federal taxes, and only in so far as these educational institutions have solved the problem of youth will the public be willing to foot the bill.

The junior college is confronted with a tremendous task, the education of all youth of 18 to 20 years of age. The program must be that which careful analysis and study reveal as most needed by youth. New ways of earning a living must receive constant attention and study, not only by youth but by their teachers and counselors.

Recent research shows that the questions of youth are not new. They ask: What job should I prepare for? How can I prepare for it? What does it offer? Can I get a job if I do prepare? How can I solve my personal problems? These questions are to be answered by the type of program we devise.

Will it be general education for all? Will it be specialized, professional or vocational? In reaching for a solution we must remember that the good citizen is prepared for a job and wants one. More than ever this year our efforts must be focussed on these problems of youth. Our thoughts must be constantly challenged and directed by ". . . unless you people rise to the occasion."

PHILIP M. BAIL.

## The Civilian Pilot Training Program

WALTER CROSBY EELLS\*

Approximately 5,000 civilian pilots in 148 junior colleges successfully completed their primary training courses last year under the auspices of the Civil Aeronautics Authority. Of the total enrollment less than 8 per cent were unable to complete the course successfully. Three per cent of the student pilots were women. Plans have been made this year

trained during the first semester of the current year.

These statements are based upon an inquiry sent by the American Association of Junior Colleges to each of the junior colleges which participated in the program during the past academic year, supplemented by information furnished by the Civil Aeronautics Authority.



FIG. I. NUMBER OF JUNIOR COLLEGES, BY STATES, PARTICIPATING IN CIVILIAN PILOT TRAINING PROGRAM, 1939-41.

to expand the program into more than 200 junior colleges, and student quotas have been assigned in these institutions to permit more than 4,000 students to be

During the regular academic year 109 junior colleges took part in the program. Special summer courses were offered in most of these and in a considerable number of others, a total of 142 junior colleges participating in the summer program. During the first semester of the

\* Executive Secretary, American Association of Junior Colleges, 730 Jackson Place, Washington, D. C.

current year 210 junior colleges are participating. Quotas have been assigned to them of 3,760 students for the primary training course and of 490 students for the secondary or advanced course. The number of institutions for the academic year 1939-40, summer of 1940, and quotas for the first semester of the academic year 1940-41 are shown for each of the 35 states involved, in Table I.

The number of institutions in each state is exhibited on the map on the preceding page.

Since the Civil Aeronautics Authority was unable to furnish information on enrollments and successful completion of courses in the junior colleges of the country, a request was sent September 18 directly to the 109 junior colleges which took part in the program last year, asking for the number of men and women enrolled and successfully completing the course both during the regular session and in the special summer program. Replies were received from 75 institutions. Results are summarized in

TABLE I. NUMBER OF JUNIOR COLLEGES PARTICIPATING IN CIVILIAN PILOT TRAINING PROGRAM, 1939-40 AND QUOTAS ASSIGNED FOR 1940-41, BY STATES

	NUMBER OF COLLEGES			QUOTA 1940-41	
	1939-40	Summer 1940	1940-41	Primary	Secondary
Arizona	1	1	2	40	10
Arkansas	3	3	5	90	20
California	19	30	36	1,060	200
Colorado	3	3	3	40	0
Connecticut	1	0	0	0	0
Florida	2	3	3	40	0
Georgia	6	5	7	110	10
Idaho	2	3	3	80	30
Illinois	1	1	8	90	0
Indiana	1	1	2	30	0
Iowa	1	8	12	150	0
Kansas	9	12	12	200	30
Louisiana	1	1	2	40	10
Massachusetts	0	0	1	10	0
Michigan	10	10	10	150	10
Minnesota	3	6	11	170	40
Mississippi	3	3	6	90	0
Missouri	5	5	8	140	30
Montana	1	2	2	30	0
Nebraska	1	2	2	40	0
New Jersey	2	1	1	20	0
New Mexico	1	1	2	50	0
North Carolina	1	1	4	60	0
North Dakota	2	2	2	30	0
Ohio	0	1	2	20	0
Oklahoma	4	7	14	180	10
Oregon	1	1	1	20	0
Pennsylvania	2	2	3	40	0
Texas	17	18	31	470	60
Utah	1	2	4	80	0
Vermont	0	0	1	10	0
Virginia	1	1	1	20	0
Washington	2	4	7	100	0
West Virginia	1	1	1	20	10
Wisconsin	1	1	1	40	20
<b>TOTALS</b>	<b>109</b>	<b>142</b>	<b>210</b>	<b>3,760</b>	<b>490</b>

Table II. This table shows a total enrollment reported of 2,970, of whom 2,743 or 92 per cent successfully completed their courses. Of the entire group 84 were young women.

TABLE II		
ENROLLMENT IN CIVILIAN PILOT TRAINING PROGRAM AS REPORTED IN 75 JUNIOR COLLEGES, 1939-40		
No. enrolled, academic year, 1939-40	1,035	
Men	1,012	
Women	23	
No. completing course, 1939-40	974	
Men	954	
Women	20	
Percentage completing course 1939-40	94.1%	
Men	94.3%	
Women	87.0%	
Number enrolled, summer 1940	1,935	
Men	1,867	
Women	68	
No. completing course, summer 1940	1,769	
Men	1,705	
Women	64	
Percentage completing course, sum'r '40	91.4%	
Men	91.3%	
Women	94.1%	
Total number enrolled	2,970	
Men	2,879	
Women	91	
Total number completing course	2,743	
Men	2,659	
Women	84	
Percentage of total number completing course	92.4%	
Men	92.4%	
Women	92.3%	
Estimated number enrolled in non-reporting colleges	2,500	
Estimated number completing course in non-reporting colleges	2,250	

On the basis of these returns and the quotas assigned for the current year, it may be estimated that approximately 2,500 additional students were enrolled in the non-reporting institutions in the regular academic year and in the summer courses, including the 39 institutions which gave such courses for the first time in the summer and to which inquiries were not sent.

Ninety-one women (3 per cent of the total) were reported as taking the course. Of these 84 completed the course successfully.

Perfect survival records, every student enrolled both in the regular session and in the summer session, were reported by 20 junior colleges.\*

Contributions by the government for ground school work of \$50 per student have amounted to approximately a quarter of a million dollars to junior colleges during the past year. In addition \$325 per student for flight instruction has been paid to the cooperating airports.

Table III lists each junior college which has participated in the program last year or this year and gives the quota both for primary and secondary courses which have been assigned for the current semester of the year 1940-41.

TABLE III. JUNIOR COLLEGES PARTICIPATING IN CIVILIAN PILOT TRAINING PROGRAM, 1939-40 OR 1940-41, WITH QUOTAS ASSIGNED FOR 1940-41.

Institution	Offered	Quotas 1940-41		
		1939-40	Summer 1940	Primary
<b>ARIZONA</b>				
Gila Junior College	—	—	10	—
Phoenix Junior College	X	X	30	10
<b>ARKANSAS</b>				
Arkansas Polytech. Coll.	X	X	20	—
Fort Smith Junior Coll.	X	X	20	—
Junior Agricultural Coll.	—	—	10	—
Little Rock Junior Coll.	X	X	30	20
State A. & M. College	—	—	10	—
<b>CALIFORNIA</b>				
Antelope Valley Jr. Coll.	—	—	10	—
Bakersfield Junior Coll.	X	X	50	10
Central Junior College	—	X	10	—
Chaffey Junior College	X	X	40	10
Citrus Junior College	—	—	10	—
Compton Junior College	X	X	50	10
Fullerton Junior College	X	X	50	10
Glendale Junior College	X	X	40	10
Lassen Junior College	—	X	10	—

\* Fort Smith, Santa Ana, Pueblo, University of Idaho Southern Branch, Gary, Coffeyville, Independence, Bay City, Flint, Virginia (Minnesota), Jefferson City, Bergen County, University (Oklahoma), Multnomah, Williamsport-Dickinson, Marshall, Edinburg, Schreiner Institute, Temple, and Mt. Vernon.

TABLE III CONTINUED. JUNIOR COLLEGES IN CIVILIAN PILOT TRAINING

Institution	Offered	Quotas 1940-41		Institution	Offered	Quotas 1940-41	
		Summer 1940	Primary Secondary			Summer 1940	Primary Secondary
Long Beach Junior Coll.	X	X	50 20	LaSalle-Peru-Oglesby Junior College	—	—	10 —
Los Angeles City College	X	X	30 10	Lyons Township Jr. Coll.	—	—	10 —
Modesto Junior College	X	X	40 10	Maine Township Jr. Coll.	—	—	10 —
Oceanside-Carlsbad Jun- ior College	—	X	20 —	Springfield Junior Coll.	X	X	20 —
Pasadena Junior College	X	X	50 20	Thornton Junior College	—	—	10 —
Placer Junior College	—	X	20 —	Woodrow Wilson Junior College	—	—	10 —
Pomona Junior College	X	X	40 10	Wright Junior College	—	—	10 —
Porterville Junior Coll.	—	X	20 —	INDIANA			
Reedley Junior College	—	—	10 —	Gary College	X	X	20 —
Riverside Junior College	—	X	20 —	Vincennes University	—	—	10 —
Sacramento Junior Coll.	X	X	30 10	IOWA			
Salinas Junior College	X	X	30 —	Burlington Junior Coll.	X	X	10 —
San Benito Co. Jr. Coll.	—	—	10 —	Centerville Junior Coll.	—	X	10 —
San Bernardino Valley Junior College	X	X	50 10	Dowling College	—	X	20 —
San Diego Junior Coll.	X	X	40 20	Ellsworth Junior Coll.	—	—	10 —
San Francisco Jr. Coll.	X	X	20 —	Estherville Junior Coll.	—	X	10 —
San Luis Obispo Jr. Coll.	—	—	10 —	Fort Dodge Junior Coll.	—	X	10 —
San Mateo Junior Coll.	—	X	20 —	Marshalltown Jr. Coll.	—	X	20 —
Santa Ana Junior Coll.	X	X	40 —	Mason City Junior Coll.	—	X	20 —
Santa Monica Jr. Coll.	—	X	30 10	Red Oak Junior College	—	—	10 —
Santa Rosa Junior Coll.	X	X	40 10	Sheldon Junior College	—	X	10 —
Stockton Junior College	X	X	40 10	Waldorf College	—	—	10 —
Taft Junior College	—	X	20 —	Washington Junior Coll.	—	—	10 —
Ventura Junior College	—	X	30 10	KANSAS			
Visalia Junior College	X	X	40 —	Arkansas City Jr. Coll.	—	X	20 —
Yuba County Jr. Coll.	—	X	30 —	Chanute Junior College	X	X	20 10
COLORADO				Coffeyville Junior Coll.	X	X	20 10
Mesa County Jr. Coll.	X	X	10 —	Dodge City Junior Coll.	X	X	10 —
Pueblo Junior College	X	X	20 —	El Dorado Junior Coll.	—	X	20 —
Trinidad Junior College	X	X	10 —	Fort Scott Junior Coll.	—	X	20 —
CONNECTICUT				Garden City Junior Coll.	X	X	10 —
Jr. Coll. of Connecticut	X	—	—	Hutchinson Junior Coll.	X	X	10 —
FLORIDA				Independence Jr. Coll.	X	X	10 —
Palm Beach Junior Coll.	X	X	10 —	Kansas City Jr. Coll.	—	X	30 10
Ringling Junior College	—	X	10 —	Parsons Junior College	—	X	20 —
St. Petersburg Jr. Coll.	X	X	20 —	Pratt Junior College	X	X	10 —
GEORGIA				St. Joseph's College	X	—	—
Abraham Baldwin Agri- cultural College	—	—	10 —	LOUISIANA			
Armstrong Junior Coll.	X	X	20 10	*Lake Charles Jr. Col.	—	—	10 —
Georgia Military College	X	X	30 —	Northeast Junior College	X	X	30 10
Georgia Southwest. Coll.	—	—	10 —	MASSACHUSETTS			
Gordon Military College	X	X	10 —	Nichols Junior College	—	—	10 —
Jr. College of Augusta	X	—	—	MICHIGAN			
Middle Georgia College	X	X	20 —	Bay City Junior College	X	X	10 —
South Georgia College	X	X	10 —	Ferris Institute Jr. Coll.	X	X	10 —
IDAHO				Flint Junior College	X	X	20 10
Boise Junior College	X	X	20 20	Fordson Junior College	X	X	10 —
North Idaho Junior Coll.	—	X	20 —	Gogebic Junior College	X	X	10 —
Southern Branch, Uni- versity of Idaho	—	X	40 10	Grand Rapids Jr. Coll.	X	X	30 —
ILLINOIS				Highland Park Jr. Coll.	X	X	20 —
Herzl Junior College	—	—	10 —				

\* Now John McNeese Junior College.

TABLE III CONTINUED. JUNIOR COLLEGES IN CIVILIAN PILOT TRAINING

Institution	Offered	Quotas 1940-41		Institution	Offered	Quotas 1940-41	
		Summer 1940	Primary Secondary			Summer 1940	Primary Secondary
MINNESOTA							
Jackson Junior College	X	X	10	—	Cameron State Agricultural College	X	20
Muskegon Junior Coll.	X	X	10	—	Connors State Agricultural College	X	20
Port Huron Junior Coll.	X	X	20	—	Eastern Oklahoma A.&M. College	—	10
Albert Lea Junior Coll.	—	X	20	—	Kiowa County Jr. Coll.	—	10
Austin Junior College	—	—	10	—	Mangum Junior College	X	10
Concordia College	—	—	10	—	Murray State School of Agriculture	—	10
Duluth Junior College	X	X	40	20	Northeastern Oklahoma Junior College	—	X
Ely Junior College	—	—	10	—	Oklahoma Mil. Acad. X	X	20
Eveleth Junior College	—	X	10	—	Oklmulgee Junior Coll.	—	10
Hibbing Junior College	X	X	20	10	Sapulpa Junior College	—	10
Itasca Junior College	—	—	10	—	University Junior Coll. X	X	20
Rochester Junior Coll.	—	X	20	10	Wetumka Junior College	—	10
Virginia Junior College	X	X	10	—	Woodward Junior Coll.	—	10
Worthington Jr. Coll.	—	—	10	—	OREGON		
MISSISSIPPI					Multnomah College	X	20
East Central Jr. Coll.	—	—	10	—	PENNSYLVANIA		
Hinds Junior College	X	X	10	—	Bucknell Univ. Jr. Coll.	—	X
Jones County Jr. Coll.	—	—	10	—	Scranton-Keystone Junior College	—	10
Meridian Junior College	X	X	20	—	Williamsport Dickinson Seminary	X	20
Southwest Miss. Jr. Coll.	—	—	10	—	TEXAS		
Sunflower Junior Coll.	X	X	30	—	Amarillo College	X	20
MISSOURI					Blinn College	—	10
Jefferson City Jr. Coll.	X	X	20	—	Brownsville Junior Coll. X	X	20
Joplin Junior College	X	X	20	10	Cisco Junior College	—	10
Jr. Coll. of Kansas City	X	X	10	—	Clifton Junior College	—	10
Kemper Military School	—	—	10	—	College of Marshall	X	10
Moberly Junior College	—	X	10	—	Corpus Christi Jr. Coll. X	X	20
Monett Junior College	—	—	10	—	Decatur Baptist College	—	10
St. Joseph Junior Coll.	X	X	40	20	Edinburg Junior College	X	10
Wentworth Mil. Acad.	X	—	20	—	Gainesville Junior Coll. X	X	10
MONTANA					Hardin Junior College	X	20
Custer County Jr. Coll.	—	X	10	—	Hillsboro Junior College	—	10
Northern Montana Coll.	X	X	20	—	John Tarleton Agricultural College	X	30
NEBRASKA					Kilgore College	X	20
Hebron Junior College	—	X	10	—	Lamar College	X	20
Scottsbluff Junior Coll.	X	X	30	—	Lee Junior College	—	10
NEW JERSEY					Lon Morris College	—	10
Jr. Coll. of Bergen Co.	X	X	20	—	North Texas Junior Agricultural College	X	40
Morris Junior College	X	—	—	—	Paris Junior College	X	10
NEW MEXICO					Ranger Junior College	X	20
Eastern New Mex. Coll.	X	X	20	—	San Angelo College	—	20
New Mex. Military Inst.	—	—	30	—	San Antonio Jr. College	X	10
NORTH CAROLINA					Schreiner Institute	X	20
Belmont Abbey College	—	—	10	—	Temple Junior College	X	10
Biltmore College	—	—	10	—	Texarkana College	—	10
Brevard College	—	—	10	—	Texas Lutheran College	—	20
Presbyterian Jr. Coll.	X	X	30	—	Tyler Junior College	X	20
NORTH DAKOTA							
Bismarck Junior College	X	X	20	—			
State School of Science	X	X	10	—			
OHIO							
Giffin College	—	—	10	—			
Rio Grande College	—	X	10	—			
OKLAHOMA							
Altus Junior College	—	X	10	—			

Institution	Offered	Quotas		Primary	Secondary
		1939-40	Summer 1940		
Victoria Junior College	X	X		10	—
Wayland Baptist College	—	—		10	—
Weatherford College	—	X		10	—
Westminster College	—	—		10	—
<b>UTAH</b>					
Branch Agricul. College	—	X		20	—
Dixie Junior College	—	—		10	—
Snow Junior College	—	—		10	—
Weber College	—	X		40	—
<b>VERMONT</b>					
Green Mountain Jr. Coll.	—	—		10	—
<b>VIRGINIA</b>					
Norfolk Division, College of W. & M.	X	X		20	—
<b>WASHINGTON</b>					
Centralia Junior College	—	—		10	—
Clark Junior College	—	X		10	—
Lower Columbia Jr. Coll.	—	—		20	—
Mount Vernon Jr. Coll.	X	X		10	—
Spokane Junior College	X	X		20	—
Wenatchee Junior Coll.	—	—		10	—
Yakima Valley Jr. Coll.	—	X		20	—
<b>WEST VIRGINIA</b>					
Beckley College	—	X	X	20	10
<b>WISCONSIN</b>					
University of Wisconsin, Extension Div.	—	X	X	40	20

The primary course includes 72 hours of ground school instruction and from 35 to 45 hours in the air, sufficient to qualify students for private pilots' licenses. The secondary or advanced course deals with CAA regulations, aircraft, engines, meteorology, aerial navigation, instruments, and parachutes.

This year the regulations have been modified so that it is more difficult for regular junior college students to qualify. Freshmen are not admitted and students must be 19 years of age. The entire primary program must be completed in one semester instead of being allowed a full year as last year. This will necessitate a student spending the major portion of his time on the aviation program. All applicants must pass the regular military physical examination. In addition, those who complete the course suc-

cessfully must promise to enter the military aviation service of the government. In spite of these limitations, however, most of the junior colleges are enthusiastic over the plan, although some expressed doubt of their ability to fill their quotas, and a few which were included last year have decided not to participate at all this year, under the new regulations.

Illustrative comments from men in different parts of the country are given below.

Much interest in this program.—Jackson Junior College, Michigan.

The program has been enthusiastically received here both by students and public.—St. Petersburg Junior College, Florida.

Sentiment for the course 100 per cent!—Bismarck Junior College, North Dakota.

We are just getting started with our program. Had to get an airport built before we could qualify. Chamber of Commerce backed the project.—Washington Junior College, Iowa.

Excellent course with much interest on the part of students and faculty. We are very pleased with the set-up.—Coffeyville Junior College, Kansas.

The boys were enthusiastic and the people of the community have grown enthusiastic. The civic clubs, the chamber of commerce, and many citizens went to a banquet and dinner and went to the airport to observe the students take off, land, and the instructor go up and do stunts.—Northeastern Junior College, Oklahoma.

As a result of our cooperation last year we have secured the cooperation of the city of Lexington and have built our own airport. Our community is rapidly becoming more air conscious because of the aviation program started here. Naturally the student attitude is of the very highest order and, in fact, threatens to change our military attitude from infantry to aviation.—Wentworth Military Academy, Missouri.

I consider this work very successful and a valuable addition to the college program.—Hardin Junior College, Texas.

The Civilian Pilot Training Program was accepted very enthusiastically last year. Our college has its own airport adjoining the college campus.—Arkansas Polytechnic College.

We think this is a great program.—Trinidad Junior College, Colorado.

Community sentiment, excellent. Student attitude, excellent.—Visalia Junior College, California.

## Looking Forward in the Pacific Northwest

GEORGE ALLEN ODGERS \*

The day after the program for this meeting was posted on our college faculty board, a member of the staff inquired why anyone should be asked to speak on this topic. My response was that the subject is a timely one and that it is one of great importance. Each educator should attempt to blueprint the future of our educational institutions. It is well for us to know the history, the present status, the controlling factors, and the possible future for our colleges. Each college administrator worthy of the name should be familiar with the present situation and should engage in social planning.

One of my students, a most unusual and rare specimen of the species Joe College, noticed the program and remarked to me: "I see you have turned crystal-gazer." In making the forward look, however, one does not have to practice crystal-gazing, consult the stars, or read the teacup. All one needs to do is to study intelligently recent developments, present trends, and conditioning factors.

In this forward look we shall be concerned only with the junior colleges in Idaho, Oregon, and Washington and we shall consider three phases of our subject: 1. Numerical growth. 2. Support and control. 3. Curricular developments.

### I. NUMERICAL GROWTH

The first public junior college now existing was established in 1902 at Joliet, Illinois. The junior college direc-

tory for 1940 reports 575 junior colleges in this country, 258 publicly controlled and 317 under private auspices. The first junior college now existing in the Pacific Northwest was established in Idaho in 1915. Centralia Junior College, Washington, was opened in 1925. Two more Washington junior colleges were opened before the first junior college was established in Oregon in 1931. In that year, seven junior colleges were in operation in these three Northwest states. Today, there are 14 junior colleges in this tri-state area. Only one of these is a state institution and only two are publicly controlled. In addition to the 14 junior colleges now in operation in Idaho, Oregon, and Washington, there were at one time or another during the last 10 years four other similar institutions. Two of these have ceased to exist and the other two have developed into four-year colleges.

The junior college enrollment in the country at large increased from almost zero in 1900 to 196,710 for the currently reported academic year. Since 1918, there has been a 40-fold increase in junior college enrollment. During the same period, the enrollment in four-year colleges and universities increased less than three-fold. During the last 11 years, the enrollment in four-year institutions increased 90 per cent. The junior college enrollment during this time increased 195 per cent. The enrollment in 12 of the Northwest junior colleges increased 302 per cent during the last 11 years, while that of 13 accredited Northwest four-year institutions increased 34 per cent. The average annual increase

\* Dean, Multnomah College, Portland, Oregon. Dean Odgers presented this paper at the twenty-third annual meeting of the Northwest Association of Secondary and Higher Schools, Spokane, Washington, April 2, 1940.

of four-year accredited institutions for the years since 1929 is 1.5 per cent; for junior colleges, 13 per cent; and for 12 of the Northwest junior colleges, 16 per cent. The 1939 enrollment increase for 648 four-year accredited institutions was 1.2 per cent; for 575 junior colleges, 26 per cent; for the Northwest junior colleges, 22 per cent.

In spite of the long, long depression and the recession, the junior college advance suffered only one relapse, that of 1.1 per cent in 1933, while the four-year accredited institutions suffered relapses of one-half of one per cent, 7 per cent, and 9 per cent in 1931, 1932, and 1933, respectively. At no time have the Northwest junior colleges failed to grow. The lowest rate was 5 per cent in 1935, and the highest was 23 per cent in 1930. The increase for 1938 was 19 per cent and for 1939, was 22 per cent, and that in spite of the fact that in this region at present there are only three junior colleges which receive tax funds. One is safe, therefore, when he forecasts that there will be more junior colleges in the Pacific Northwest and that the total enrollment will continue to increase.

Not only do statistics give grounds for this belief but the following trends and influences will lead to further expansion and growth of junior colleges:

1. Increasing adaptation of courses—school, highschool, and college—to training for life.

2. A steadily increasing belief in keeping youth in school and college as long as possible.

3. Increasing tendency and necessity to keep youth out of regular gainful employment as long as possible.

4. Real advances in sight toward making it possible for a large percentage of rural youth to attend high school. Within 25 years there will certainly be a change for the better in this regard which will add materially to the high school enrollment.

5. Rapid growth of junior colleges. The general tendency is to include a two-year junior college as a part of the school system of cities, or larger political units: for example, county junior colleges in Mississippi, district junior colleges in California, and a few state junior colleges elsewhere.

6. Probable development of vocational training in urban junior colleges.

7. With two and a half million living college graduates and fourteen and a half million high school graduates in our present population, with these numbers steadily increasing, and with the level of education of all of our people higher than ever before, we must expect them to insist on better and more education for their children than we now provide.

8. Finally: If we look back 50 years, in 1885 we find 32,468 graduating from high school, against 1,000,000 graduating in 1936, and 12,637 graduating from college against 135,000 graduating in 1936. As we consider the increase in facilities and expenditures and the profound changes in curriculums, we must agree that further profound changes are probable by 1980.<sup>1</sup>

## II. CONTROL AND SUPPORT

As previously mentioned, 11 of the 14 junior colleges in this region are under private control. Not one of them receives a cent of support from public funds. All are entirely dependent for support upon student fees, small donations, and the sacrificial salaries of their faculties. Only in Idaho is there legislation permitting the establishment of public junior colleges. Boise and North Idaho junior colleges now operate under the law passed in 1939. Largely due to the increased financial support thus made available, the Boise enrollment this year is 362 per cent greater and the North Idaho 59 per cent greater than of last year.

The time cannot be far distant when Washington will provide public support for its junior colleges. When that time comes, there will be a small increase in the number of junior colleges in that state and a marked increase in the number of junior college students. There are some students now attending the state university, the state college, and the three state colleges of education who would attend the Washington junior

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<sup>1</sup>R. M. Hughes, "Higher Education in 1980," *Journal of Higher Education*, 9:77-83 (February 1938).

colleges, if they were partly tax-supported. The public support of Washington junior colleges, however, will probably have small effect upon the enrollment of the five four-year state institutions. Many young people not able to attend the existing tax-supported Washington institutions of higher learning will flock to the tax-supported junior colleges.

At present, there are only two junior colleges in Oregon, both private institutions. A recent survey revealed that there is a very limited demand in Oregon for an extension of junior college facilities. Recent legislatures, however, have seen the introduction of junior college bills. There are in Oregon only two or three places outside of Portland which could adequately support a junior college and in Portland there is little or no demand for a public junior college, as badly as such an institution is needed. In Oregon, the population is concentrated in metropolitan Portland and the Willamette Valley. This region is served by a plethora of four-year institutions. The financial future for the junior college is not as bright in Oregon as it is in the other two Northwestern states, of which one already provides for public support and the other will surely do so in the near future. In the meantime, the junior colleges in Oregon and Washington will have to continue to husband their funds and to pray for some wealthy public-spirited person or persons to be inspired to provide adequate endowments.

One of the Oregon junior colleges is a strong church institution and there is probably not the slightest possibility of its ever becoming publicly controlled. The other junior college is an integral part of the long established formal educational branch of the Portland Young Men's Christian Association and it, too,

will continue under private control. While there will probably be a few private junior colleges in the Pacific Northwest, the great majority of junior colleges in this region will be public institutions. Some will be under state control. Others will be financed by union districts. A few will be municipal institutions.

All of the Washington junior colleges would gladly become public institutions, provided the state legislature would enact a satisfactory junior college law. The one private junior college in Idaho has several times endeavored to secure state support, and under the new Idaho junior college law may be able to do so. One wonders why the intelligent, far-seeing citizens of the Evergreen and Gem states and their educational, financial, and political leaders delay bringing into being and operation state systems of higher education which include district municipal junior colleges, upper division elementary teacher training schools, and state universities requiring junior college graduation for admission.

### III. CURRICULUM DEVELOPMENTS

An examination of the catalogs of Northwestern junior colleges reveals that their major function is that of serving as "feeders" or "stooges" for the four-year colleges and universities and that their offerings are largely limited to lower division courses in the arts and sciences. The junior college cannot be blamed too much for over-emphasizing what is commonly known as the preparatory function. Because of small enrollments and limited means, the junior colleges cannot do otherwise. When the enrollments in the junior colleges increase, we can expect to find adaptation of curricula to meet life needs. The steadily growing belief that youth must stay longer in school, the movement to establish vocational junior colleges, and

the demand for the development of terminal semi-professional and vocational curricula along with the present pre-professional and lower division curricula will reduce the emphasis on the preparatory function. Some of the Northwest colleges are now beginning to offer terminal curricula, the extension of which will attract many more students and will increase the effectiveness of the institutions.

It looks as if the junior college will develop into the long looked for "people's college" and that in many localities it will become the community educational center. Stimulated by the Suzzallo Report, which advocated training for social intelligence, a number of the larger California junior colleges have introduced general educational programs which attract thousands of adults. This movement will spread. At present, the junior colleges in some cities are somewhat handicapped by the adult educational program of the Works Progress Administration; nevertheless, in the future the junior college in this section, as elsewhere, will be organized to operate with day and evening programs to meet the needs of most of the post-high school youths and the adults of the community.

#### SUMMARY

Looking forward in the developing of the junior college in the Pacific Northwest, we can confidently expect to see more, larger, and better junior colleges, most of which will be tax-supported, publicly controlled institutions, with curricula organized to meet the special needs of the communities in which they are located. Under wise educational leadership and intelligent political statesmanship, the number of these institutions will be limited, but their facilities will be made available to youth and adults alike.

#### PLANS IN SIAM

From far distant Thailand (better known in America as Siam) comes news of a significant junior college development. Bangkok Christian College was organized in 1915 under the auspices of the Presbyterian Board of Foreign Missions, but has been limited in its offering to work of high school grade. In 1939 the Thailand Ministry of Public Instruction, under the vocation school act, authorized the college to offer a four-year course in English equivalent to the final two years of the American high school and the first two years of college. Plans include also the government three-year teacher training course. Difficulty of securing instructors, due to war conditions, has delayed the complete development of the school, but already a beginning has been made. The president of the institution is Dr. E. Mowbray Tate, who received his A.B. from Whitman College in 1923, his M.A. and B.D. from San Francisco Theological Seminary in 1929, and his Ph.D. from Columbia University in 1932.

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#### COMMUNITY ROSE GARDEN

San Mateo Junior College, California, has received 3,000 rose bushes, many of rare types, from the San Francisco World's Fair, following its closing. They will be used to establish a community rose garden on the college's new campus.

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#### WRITERS AND SPEAKERS

Faculty members at Eastern New Mexico College have published 38 articles and books, professional and general, in the last year. They have 32 other publications contemplated, and are engaged in 49 additional works of research. They made 137 speeches and other contacts with public groups.

## High School Concepts of Junior College

A DOLPH M. KOCH \*

Educators are now busy discussing and defining the junior college movement. Whether this movement is young or old depends largely upon the community under consideration. What the citizenry knows concerning the junior college is amazing. From impressions that a junior college is a high school, a preparatory school, a ladies' finishing school, to the expression that it is a secretarial and commercial school runs the gamut of answers. Two years of experience with such responses suggested a questionnaire-experiment among prospective graduates of high schools, to discover what the students who are about to enter college think on the subject of the junior college.

The testing field was limited to three townships in Essex County, New Jersey, each of which had one high school. Each town has approximately 30,000 to 50,000 population. Each candidate for graduation was asked to fill out a questionnaire blank, but his name was not required. Some of the questions asked, pertinent to the present discussion, were:

- (1) Are you planning to go to college?
- (2) Would you attend a junior college?
- (3) Do you know what a junior college is?
- (4) What occupation or profession do you intend to enter? Other questions covered the topics of age, sex, employment, the college already chosen, social interests, hobbies, clubs, sports, newspapers and magazines read, etc.

The total number of students who voluntarily answered the questionnaire was 390—210 young men and 180 young

women. To the question, "Do you plan to attend college?" 144 answered in the affirmative, 223 in the negative, and 23 did not answer. Of that number, 160 were willing to attend a junior college, 149 were not willing to attend a junior college, and 81 did not answer. It is apparent that while 144 were planning to go to college, 160 would attend a junior college. The discrepancy arose because many of the students did not think a junior college was an institution of collegiate rank. The impression of some of the students was that a junior college was a secretarial school or a vocational school. On the other hand, some of the widely known commercial schools or business schools which employ the term "college" in their institutional title were mistaken for the academic institution (the conventional college). This was so, despite the supposedly known fact that most of these commercial schools do not require a high school diploma as an entrance requirement, and cater largely to grade school graduates. Another revealing contradiction was the fact that some of the high school students who indicated a choice for professional occupation did not know that collegiate preparation was necessary. For example, a student would indicate the medical profession as his choice and did not know that there were pre-medical collegiate requirements. Another student indicated the desire to attend a junior college with the remark that after her secretarial course was completed at the junior college she would prepare for nursing in a collegiate institution to fulfill the requirements.

\* President, Essex Junior College, Newark, New Jersey.

In answer to the question, "Do you know what a junior college is?" 193 answered in the negative, 9 were in doubt concerning the question, and 188 answered in the affirmative. The fact that more than 50 per cent of high school seniors do not even know what the junior college stands for, academically, is some indication as to the number of citizens who are not acquainted with the junior college movement. Certainly, the high school graduate is in a better position to become acquainted with collegiate institutions than are his parents. The data, of course, are relevant to only three communities. An extended study of this kind might reveal information very pertinent to the junior college movement as a whole.

An interesting bit of information was revealed in answer to the question on choice of occupation. Commercial occupations (typing, stenography) ranked first among the total number chosen by students preparing for clerical positions. The large choice is accounted for by the number of young women who answered the questionnaire. Business occupations ranked second, and in descending order followed engineering, accountancy, nursing, and aviation. Teaching ranked higher as a choice than three professions in the following descending order: medicine, law, dentistry.

Evidently, although the junior college movement has arrived and is here to stay, adequate knowledge concerning the functions of the junior college has yet to reach the public.

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#### LON MORRIS DEAN RESIGNS

Wayland P. Moody has resigned as dean and business manager of Lon Morris College, Texas, and is continuing work for his doctorate at the University of Texas.

#### McNUTT'S JUDGMENT

We must be in a position to provide the means to take young people who reside in localities which cannot provide suitable educational opportunities to the schools which fit their needs, even though these schools are located in other communities which may be, in some cases, a considerable distance from the homes of the students. Moreover, as more and more young people defer their vocational training until late in their secondary-school course or until after high school graduation, there must be a parallel development of vocational courses on a post-high-school or junior college level. The present trend toward the development of regional junior colleges or technical institutes offering terminal vocational courses should receive financial encouragement.—Federal Security Administrator Paul V. McNutt, in banquet address at meeting of American Vocational Association, Grand Rapids, Michigan, December, 1939.

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#### OBTAINS DOCTORATE

H. S. Von Roeder, principal of Ranger, Texas, high school and dean of the junior college from 1927 to 1936, received the doctor of education degree from the University of Texas in June. His dissertation was a study of Texas public junior colleges with special reference to the curriculum.

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#### GIRL HAS 265 DATES

Statistics compiled at Stephens College, Missouri, show that the average Stephens girl has 25 dates during the school year. Last year one girl had 265 dates, the highest number on the campus. One-third of the girls—those who dated most—averaged 53 dates. Only 37 students did not have any dates.

## Problems Underlying Engineering Training

GEORGE E. DAVIS \*

What is an adequate preparation for the engineering profession, and especially the part played by mathematics in such a preparation? I call engineering a profession because its requisite knowledge rests upon a foundation of long and exacting training. I call it a profession to emphasize the fact that the foundation training must be measured by professional standards. The engineer must not only know the facts but how to apply them, often in untried circumstances. Therefore the training must be so presented and correlated that it can be used vigorously and with reasonable approximations. In these days the line of demarcation between the engineer and the scientist has become very thin and uncertain. Laboratory findings and techniques no longer have to wait on years of gradual development and simplification. Your engineer has become a scientist; your scientist an engineer; and the machine (or the technician) has taken over the routines which formerly absorbed so avidly the more poorly trained, and often the more active technical graduates.

In the face of such a situation our engineering schools have a more exacting job on their hands. In California, at least, the junior colleges have the responsible job of turning out adequately trained, picked candidates for advanced courses. We also have the responsibility of guidance into suitable vocations for those others who do not, or cannot, respond to the transfer standards. These latter might well be diverted into the

trades and industry courses now available in most of our junior colleges.

As a passing comment it may well be observed that science, mathematics, and English instructors should make it plain to their administrators and to the public that the subjects given by their departments are quite as useful and necessary, vocationally, as any group of trades courses given. No trades course worthy of junior college level, or acceptable to industry, is effective without this training. Furthermore, it is the responsibility of the trades departments to outline their particular needs in considerable detail, and with illustrative problems, when asking other departments to teach courses usable as a foundation for vocational work. They usually fail to do this, and then complain that the training given is not "practical." The real fault probably is that too little time has been allowed for such training to be made effective.

Now what is a suitable engineering preparation training? As a basic principle it is a foundation training, and as such should be broad enough to support the superstructure. It should take into consideration the citizen's obligation to the community and the state—that is, intelligent, thoughtful citizenship. These are days of economic and political struggles. The argument used in the campaign to elect Herbert Hoover still holds—that engineers are responsible for the operation and order of so much in our daily lives that they should be in a position to produce capable leaders among statesmen as well. The universities may not have done such a good job in the

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past in this respect. Perhaps it is a moral issue. At any rate, there has been plenty of criticism that corporation leaders have not been outstanding proponents of the public welfare. We should, therefore, include courses in economics and political science. The political science should not be concerned with the details of municipal, county, state, and federal governmental organization, but rather with the relations of government to industry—the freedoms and controls which society is trying to evolve to further the public welfare. Nor should there be biased attitudes toward such controls, either for or against. Such controls by state and federal governments are here to stay, and engineers will have to make their way in a society operating under such restrictions. They should have positive ideas and thoughtful reactions to all such changing conditions.

Seldom does a young engineer have occasion to give an extemporaneous talk on a difficult technical problem in connection with his work. But it is highly important that he learn how to write a clear and concise technical report, or a set of reference notes for a prepared paper. He should have, then, a good course in English composition, which should be given at a time when he has had an opportunity to acquire sufficient technical information on which to write. Surely the technical literature should be useful material for such a course. The passing of Subject A Examination is not adequate evidence of the desired abilities in English. Passing this examination might well be left as the final hurdle before "junior standing" registration. Where other preparation is adequate, but there is a deficiency in language, German is to be recommended as still the most useful scientific foreign language. Physics and chemistry are required by

the university and the contents of these courses pretty well outlined. The calculus should be used in teaching the second year of physics. Other courses are, however, less specific.

To give laboratory training and special study of mechanical or electrical machinery seems to be a mistake, since these subjects are generally studied in the junior or senior year at the university. Such laboratory work does have more appeal to students and is perhaps easier to manage, once the routines are established; but generally the students are not sufficiently advanced in theory to acquire more than a superficial understanding of the experimental work. A certain stigma has been attached to the word *theory* by those who would be "practical," but after some experience in both physics and engineering laboratory work, I am skeptical of the belief that fundamental conceptions are best learned by the study of commercially developed machines. Certainly they should be used, and freely, alongside the stripped experimental procedure, in upper division work. But such training is best carried out later, parallel with and in connection with design courses.

What technical courses then, would I include in the junior college curriculum? I would include: 1. What might be termed intermediate problem courses set up to provide supervised computation periods in statics and mechanics of materials (not dynamics, however, as this subject responds better to calculus methods and should come later). 2. Similar supervised problem work on the laws and circuits of magnetism and electricity. 3. A study of the sources and uses of engineering materials. 4. Machine shop practice and pattern making. 5. An extension of the work generally given in descriptive geometry. 6. Less copy work in drafting courses and more

drawing from models. 7. Surveying.  
8. Geology.

For those who must take an extra half year to meet requirements and others who elect to take a longer period of preparation, I would recommend a course in elementary thermodynamics and heat. This is a large order, and certainly no two-year student can profit by all the possibilities given.

And now, last and foremost—mathematics. Probably nothing in the engineer's curriculum is so important and offers such a fine challenge to his abilities. The general cry from the junior colleges is that the high schools are shirking their job—with respect to mathematics at least. The high school mathematics teachers presumably say that their students don't even know the multiplication tables and that the grade and junior high schools are at fault. What do the trade and vocational instructors have to say? Generally it is that the students cannot apply their mathematics to problems in hand; hence it's not "practical" enough — whatever that means. Analyses are seldom if ever made to show the nature of the failures.

We are not getting the effective results we would like. Some causes for the difficulties may be the following: (a) Students mull and ponder over the obvious. (b) They are slaves to a single approach to perception. For example, a problem or operation presented in slightly different form or by short-cut process is unintelligible. (c) They lack guts, apparently are unaccustomed to seeing a difficult thing through. (d) Students cannot read stated problems. This seems to be due to a combination of reasons, such as: 1. A failure to understand words and their exact meanings. 2. Failure to grasp complete ideas from sentence structure. 3. A slight or wanting concentration. 4. They have not

acquired the habit of review and co-ordination of lessons already studied as individual assignments.

I make no attempt to weigh or order the above items of diagnosis. For the sake of possible argument I suggest that the following basic causes underlie these difficulties.

1. Classes of excessive numbers of students, most of whom are from homes advocating the new freedom for parents as well as children.
2. Increased demands on elementary and high school teachers because of increased attention and energy given to classes in the so-called "frills."
3. Changed attitudes toward the former virtues of application, mental and physical discipline.
4. Supposedly supervised study periods in the place of home work by high school pupils.
5. Excessive social activities by pupils during week days and evenings at school as well as at home.
6. The prevalent tendency for each level of education to reach into the seemingly more colorful and spectacular subject material of the higher level in order to create interest and make subjects more enticing with smatterings of information.
7. Attempts by school authorities to postpone routine practice subjects into later age levels. (Many of the routine operations of algebra are best learned as *routine operations* through continuous practice, and not by a process of understanding the rules of performance. The possible gain in perception at a later age cannot offset to any extent the loss in repetitive practice. This applies particularly to algebra, which might well begin in the eighth grade. As to plane geometry, is it not inefficient to take several weeks to teach a few easily formulated usable facts, without attempting to get

the benefit of the ordered mental discipline which it offers? I suggest that plane geometry be taught in the ninth grade, then followed by more, and still more, algebra.)

8. Attempts to be "impressive"—the word used is "progressive"—at the expense of thoroughness, because it has been the current educational fad.

9. Connivance, if not encouragement, that students in the lower grades guess at word meanings through context. These are not adults, but children whose experience is insufficient to warrant intelligent guesswork.

10. The class average as a standard of achievement.

11. Finally, and I think very important: We seem to feel that we are obliged to train students primarily to meet certain requirements established by some higher authority, such as university requirements. Should it not be our objective to prepare a student so well that he will demand more from the next level than he customarily receives? The motivation should come from below, and the student will then be able to derive the greatest benefit from advanced work and give the most to his job.

#### TRAINING FOR DEFENSE

California junior colleges are playing a prominent part in educating skilled workers for the national defense, says an article in *California—Magazine of the Pacific* by J. C. Beswick, chief of the state bureau of trade and industrial education, entitled "Schools of California Will Meet National Defense Needs."

Compton Junior College is given special prominence, especially in pictures, with mention of its "new aeronautics building closely resembling a real factory," and Chaffey Junior College at Ontario is described as "reporting 100 per cent placement."

Among junior colleges offering aircraft training are mentioned Sacramento Junior College, Pasadena Junior College, Modesto Junior College, Pomona High School and Junior College, and Bakersfield Junior College.

In many cities, such as Los Angeles, Burbank, and Glendale, the entire school system, or especially the trade school system, is described as offering training for defense.

The question regarding new classes being introduced this year revealed that no fewer than 60 new classes specifically in the aircraft field have been added by the schools returning questionnaires. Other new classes important to defense industries included: 13 each in machine shop and welding, 7 in carpentry, 6 in general sheetmetal and auto mechanics, 5 each in pattern making and electricity, 3 in blueprint reading, 2 each in shipbuilding, ship-fitting, plumbing, and petroleum engineering, and one each in drafting and radio.

#### STYLE AND GROOMING

A style and grooming salon is part of the service offered to students at New London Junior College, Connecticut, this fall. It is under the direction of Mrs. Vara Maibrunn Rowland, who has been appointed to the teaching staff. The salon is an expansion of last year's grooming clinic. Service to women students is supplemented this year by evening courses for adults and by conferences for the young men of the college. A course in clothes is being offered for credit for the first time as part of the new home management course.

The junior college is meeting a variety of student needs in a variety of stimulating and interesting ways.—Millicent J. Taylor, in *Christian Science Monitor*.

## Intramural Athletics at Blackburn

MARLOWE SLATER \*

When five o'clock comes on Monday, Wednesday or Friday afternoon, streams of boys at Blackburn College are seen making their way to Dawes Gymnasium, the tennis courts, or the track to play off another of the contests in the intramural league. Over 90 per cent of the Blackburn boys take part in this voluntary program of healthful recreation.

The purpose of Blackburn's present program in sports is to encourage participation in three ways: by providing organized competition in a number of sports; by providing as nearly equalized competition as possible; and by arranging the time of the contests so that the largest possible number of boys can compete.

Fall competition is furnished in tennis (singles), softball, football skills, and cross country running. Ping-pong (singles and doubles), basketball, basketball free-throwing, basketball golf, volleyball, and weight lifting fill out the winter program. The spring season offers archery, horseshoes, tennis (doubles), and a track and field meet.

To provide equalized competition each male student is registered on the opening day of school with one of the five intramural squads which he may choose. Each squad is captained by a varsity letter winner and is made up of the same boys throughout the college year. In each sports event the captain is free to organize his players in the most efficient manner possible in an attempt to win the contest.

At Blackburn the Self-Help plan calls for two and one-half hours of work each

\* Coach, Blackburn College, Carlinville, Illinois.

day from every boy and girl in college. This factor proves to be somewhat of a hindrance in finding a time for the scheduling of the different events, but between five and six o'clock each afternoon as many as 15 to 20 members of each squad can be free for an hour of participation.

One of the most gratifying results of the Blackburn intramural plan is that so many of the boys are interested throughout the year. Several factors may be responsible for this. First, the sports vary enough in nature that a boy will probably find one sport in which he is very much interested. This one interest almost always leads to further participation in other sports.

Second, the program is flexible enough that the interests of the boys can easily be met. For example, Blackburn has no varsity football and when the boys began to get interested in nearby football games a football skills contest was introduced. One boy in college owns a set of weights, and several of his friends enjoy working out with him. All were invited to prepare themselves for an intramural match in March.

Third, participation is encouraged regardless of the degree of skill the boy has. The point system is built in such a manner that the reward for winning is minimized. In contrast, the squad captain is encouraged to use a large number of players in a game because he earns the major part of his intramural credit in that way.

Fourth, methods are used to include a large number of players in a given sport. For example, rather than to eliminate players after one match in a game such as ping-pong, a ladder tournament

is conducted over a six-weeks period, and at the end of that time an elimination tournament is played among the men who top each of the five ladders. It is also of value to have other boys on the squad insist upon their squad mates entering certain contests in which they are known to excel. The squad captain must see to it that he or the director personally informs each boy as to when and where the contest for the day is to be held. To the cross-country squad whose entries win the Thanksgiving morning turkey run there is given a turkey dinner on Thanksgiving day—the remainder of the student body being satisfied with chicken. Woe be unto the distance runner who fails to report for that race when he again faces his squad mates!

In the scoring system, participation is stressed more than the award! However, the squad which collects the greatest number of I-M points for the year is given a plaque bearing the name of the squad and the names of the five boys who contributed the most points to the total. This plaque is placed in the Dawes Gymnasium. Individual awards are given to the five boys in the entire college who have earned the greatest number of points. The awards have a monetary value of approximately one dollar.

A rather simple scoring system is used. First, the sports are divided into team (or group) sports, and into singles (or individual) sports. The scoring system, with these classifications, is as follows:

<i>Group Sports (Club pts.)</i>	<i>Individual Sports (Club Points)</i>
Entry _____ 50	10 points per person
Winner _____ 50	50 (Based on highest
Second _____ 40	40 total according to
Third _____ 30	30 competition place-
Fourth _____ 20	ment)
Fifth _____ 10	10
Varsity squad	10

mem. (ea.)	10	Contest forfeiture, -10
Each man		Plus relinquishing
who plays... 5		all earned points
Contest for-		by final standing.
feiture _____-10		

(Individual Points)	(Ind. Pts.)	
Entry	(5 points per game	10
Champ.	played, plus the	50
Second	number of points	40
Third	awarded the team	30
Fourth	for its final standing	20
Fifth	in the round-robin	10
	tournament)	

Contest forfeiture	-10
Plus relinquishing all earned points by final	
standing.	

*Officiating:* 5 points for each contest that does not have to be replayed. Both the club and the individual receive this award. (We have never had to replay a game although we have always used student officials.)

In planning for the future, the program is kept flexible so that it can be added to or subtracted from very easily, as was indicated in the weight lifting and football skills contest. Six-man touch-football might be added in place of the football skills contest. Since social dancing is very popular on the campus, there is some thought of giving intramural credit points to the boy who dances a specified number of dances during a "Teaser" (as Blackburn students call those social dances which last only an hour).

After one year the Blackburn men in charge of intramural athletics realize that they have only scratched the surface of a vast field of possibilities. The aim last year was to place each boy in two hours of elective intramurals each week rather than to require him to take part twice a week in a class in physical education. This plan comes much nearer to the actual life situation into which each student will go in a few years.

*NOTE:* Since this manuscript was written, intramural golf and badminton have been added; six-man touch football and social dancing have been added as was suggested; and the point system has been altered to permit a more balanced credit between the player on a winning team and the player on a losing team.

## MUSIC AT GREEN MOUNTAIN COLLEGE

INGYR MARIE LIEN \*

All our acts are bound by invisible fibres to every other act under the universal sun. He truly lives who recognizes the unity of all life. We try to isolate our vocation and develop it along its own special lines, but nature knows no such exclusion. Rightly to specialize means to emphasize, not to detach. Every activity of ours is like a part in a complex web of counterpoint—it goes its own way and has its own individual rhythm, but finds its full significance only in its union with other activities which combine to form a living whole.<sup>1</sup>

The value of any college course is not in the meagre quantity of facts gathered in a semester or two; neither is it in the sharpening of certain acquisitive faculties but rather in the vision it creates, the imagination it kindles, the mental and moral bracing it affords through the presentation of stimulating ideals. Nothing is isolated; nothing is known except in its relations.<sup>2</sup>

In the spirit of such statements, the effort has been made at Green Mountain Junior College to bring music into closer relationship with literature, the visual arts and history. Such an undertaking is not unique; similar movements have been carried on in many schools, such as those listed under the heading, "Departmental Exchanges," in Randall Thompson's book, *College Music*,<sup>3</sup> the result of an investigation of the musical activities in 30 liberal arts colleges in America. These exchanges vary from the physical education courses of a southern woman's college which offer special exercises in hand, arm, and shoulder relaxation for instrumental students to the collaboration between the depart-

ment of music and the departments of psychology, science, sociology, literature and history in an Oregon institution.

It is an interesting and remarkable fact that at Green Mountain College the initial move was made by the teachers of literature, history, and the visual arts. Having been presented with an electric phonograph and more than 600 records from the Carnegie Corporation in the fall of 1938, Green Mountain College has more than adequate facilities for this undertaking. Outstanding works from each period of musical achievement are represented in this record library. These correlated programs have been held in the Carnegie Record Library in Music Hall during the class period or on some appointed evening. If the program is held during the period when the class regularly meets, the usual college regulations pertaining to class attendance insure a fair-sized group. However, when such programs are purely supplementary to the course, taking place on some appointed evening, some scheme of baiting the student has been necessary to swell the group to such a size as would make the effort worth while. During the last school year the instructor of modern European history has given a grade bonus for this supplementary program which, in being more than generous to the students, offered the greatest amount of cooperation to the collaborating music instructor.

Another welcome device was a plan of checking up to ascertain the effectiveness of the program. This was done by means of a brief questionnaire filled out following the correlation program. The

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<sup>1</sup> Edward Dickinson, *Music and the Higher Education* (Scribners 1915) p. 4.

<sup>2</sup> *Ibid.*, p. 13.

<sup>3</sup> Randall Thompson, *College Music* (Macmillan 1935).

questions, rarely numbering more than three, were of the objective type. No grades were given and the students were not required to write their names on the questionnaire. This so-called measuring stick was then applied to the work with the students in history and appreciation of art. In the correlation of music with English literature, questions have been reserved for regular tests.

The question often arises whether any gain is to be made in urging the lecture upon some indifferent and listless chap whose very posture seems to shout rebelliously, "So what?" to the instructor's enthusiasm in pointing out the parallelism between the maze of vaulting ribs and heaven-seeking spires of a Gothic cathedral, and the intricate, interweaving spiritual voices of a Palestrina motet. On the other hand there is the student who has never had musical training of any kind who goes out of her way to seek out the collaborating music instructor after a concert, and enthusiastically and, to all appearances, in deep sincerity, says, "I want to tell you that I enjoyed this evening's program so much more than I would have had I not been introduced to the sixteenth century sacred and secular music on Monday evening in the meeting of the European History class." Then it is that the instructor experiences one of those brief moments which, perhaps because they are so rare, make him glow with inner warmth and satisfaction and he fervently breathes, "If only for that student it was worth the hours of necessary preparation."

When one faces a group of students to whom such terms as "counterpoint," "canon," "imitation," "tonic," and "dominant" must be explained and illustrated in detail by use of familiar terms and examples, the time can be used up rapidly in mere introduction to the subject. The instructor must attack only

the more evident and salient points for demonstration, and in such a process some of the underlying principles which are crying out for recognition must go by unobserved by the student until he has acquired a knowledge of, and what is more important, a *feeling* for both music and the subject in which he is involved.

Then there is the uninitiated listener's penchant for expecting to have definite pictures thrown upon a mental screen while the music is played. If, for instance, the chanting of a Gregorian Plain Song does not in any way suggest to his mind a Romanesque doorway, he pronounces the effort to correlate the two a failure. Nevertheless there are certain principles, a certain spirit, which is translated on the one hand into stone, as in the porch of St. Peter's Church, Aulnay,<sup>4</sup> or into the tympanum of the South Portal in the Church at Moissac,<sup>5</sup> and on the other into the impressive and "solemn tranquillity of the Gregorian Chant, its wonderfully sensitive and appropriate proportions, its highly ingenious and interesting construction, its apparent simplicity, its basis on the plane: all these traits are musical parallels to the architectural ideas of the Romanesque style."<sup>6</sup> To seek closer relation than this would cause the eclipse of one art by the other. The student must be reminded at this point that the correlation of the arts is a process of making evident certain parallel features and is in nowise the fusion of a mass of totally different materials.

This difficulty, which arises more in correlating music with the visual arts

<sup>4</sup> Sheldon Cheney, *A World History of Art* (Viking Press 1937), Illustration p. 421.

<sup>5</sup> Helen Gardner, *Art Through the Ages* (Harcourt Brace & Co., 1926), Illustration, Figure 402, p. 287.

<sup>6</sup> Hugo Leichtentritt, *Music, History, and Ideas* (Harvard Press 1938) p. 48.

than with history and literature, is perhaps to be expected because of the nature of that course. The programs correlating music with the visual arts which deal with primitive, romantic, impressionistic, and contemporary forms, in which the imagination finds much upon which to feed, have been the most successful. Such periods of art as the Golden Age in Greece and ancient Egypt, while they do have their counterparts in the history of music, are almost totally void of music examples. In the former the most successful correlation has been in connection with eighteenth century classicism, and for the latter recourse has been made to Verdi's *Aida*, which, although a product of the late nineteenth century, is of interest to the student of Egyptian art because of its setting. In pointing out the parallel or coinciding principles in mediaeval music and Romanesque architecture; in sixteenth century polyphony and Gothic cathedrals; in Renaissance art and the secular forms of music, vocal and instrumental, of that period, the instructor can claim no measure of success. This might be attributable to one of several reasons: the lack of a knowledge of musical terms on the part of the students, precluding the use of technical terms; a lack of interest in these forms of music, visual arts, or both; the limited time, making impossible any detailed explanation on one point; the inability of the student to carry with him the social and cultural picture of the age which has been presented by his art teacher.

Those in charge of the project believe that one point made convincingly real to the student is of far more value than ten vague cobwebby strands linking forms and styles with sociological and national trends which criss-cross in confused and haphazard patterns. Therefore upon repetition of this series of

lectures a sifting down to the kernels of the subject would be the first recommendation of the collaborating instructors and in turn would offer more opportunity for pertinent illustrations.

An experimental program was recently given which departed from the sociological and historical method of approach heretofore adhered to in the work with the visual arts department, and attacked instead the problem of pointing out the relations between formal organization in music and painting, architecture, and sculpture. This program met with greater success than was anticipated by the instructors. The response varied, of course, in proportion to the thoroughness with which the students had made themselves aware of the principles of form, balance, symmetry and contrast in the visual arts. Their adaptability to this method was also conditioned by their susceptibility to tonal effects and by the vividness of their aural perceptions. Since examples of music, painting, and architecture used for illustrations need not be contemporaneous in a program of this kind, the correlator finds an advantage in being able to select correspondingly fine masterpieces in the respective fields. Students were requested to bring their art history textbooks, from which specific examples were selected to parallel the recordings of musical forms to which they listened.

In the lectures to the students of modern European history approach is purely along sociological lines, the prime purpose being to show as far as possible how the music of any period reflects the social, cultural, religious, and even the economic aspects of that period. Here, too, when the music is less alien to the student's tastes, experience, and environment, great success has been achieved.

Below are some of the programs given at Green Mountain Junior College which

have related literature and drama with music. Some have employed collaborating instructors from both music and literature departments, and others have been handled entirely by either the literature or music instructor:

Till Eulenspiegel, the Rogue of German Folk Literature in Tale and Tone  
 Elizabethan Madrigals  
 Romantic Poetry and the German *Lied*  
 Music and Drama  
 Gilbert and Sullivan  
 Realism in Literature and Music  
 The *Faust* of Goethe and Gounod

The wealth of recorded masterpieces of religious music gave occasion during the year 1938-1939 for a meeting in the Carnegie Record Library of the class in Biblical literature, during which the director of the Green Mountain Choir gave a lecture on sacred music.

Other activities, although they cannot be classified as having a correlative purpose, have possibilities in the promotion and encouragement of a more receptive attitude toward music. These activities include the listening and singing periods which have been a part of the courses in modern foreign languages. The professor of these courses, a capable and discerning musician, handles this work with enthusiasm and at the same time grasps the opportunity to infuse into the mind of the student a respect for, and recognition of, the part which music plays in all countries. Another instructor has brought her class members to the Carnegie Record Library to hear the concert and operatic versions of marches and other compositions used for her typing class, in which necessity for utmost regularity of rhythm obviously alters the interpretive and artistic nuance and phrasing. If this could be done a few times during the year, this particular class might acquire some ability to listen comparatively and to realize the difference between contrast-

ing interpretations of the same composition. Another interesting experiment was made by one of the teachers of English composition. Seating his class in the music library, each pupil equipped with a writing pad, he played records of compositions varied in style and color, during which they wrote on subjects which the music suggested to them.

The conductor of the orchestra and string ensemble has attempted to build integrated programs, providing on a small scale a picture of the growth of instrumental music. Series of programs have been planned and given during the course of a school year which take up the works either in chronological order or emphasize the music of one or two countries, thereby illustrating national characteristics in music.

The instructors involved in this enterprise of correlating music with the visual arts, history, and literature feel that the undertaking is yet somewhat of an experiment. They believe that it has possibilities, that there is justification in the "constant appropriation of whatever will promote the full life of the soul."<sup>7</sup> Sensitivity to formal beauty does not spring suddenly into full blossom in the soul of a college student; it must be nurtured. Here, too, the weeds grow rapidly, and in wild confusion, choking out those good seeds which we planted only yesterday.

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The type of permissive legislation which leaves the community helpless to maintain anything but a two-year liberal arts college thwarts rather than helps in the development of the kind of junior college which is needed to round out the public educational system of the country.—FRED J. KELLY, U. S. Office of Education.

<sup>7</sup> Edward Dickinson, *op. cit.*, pp. 10-11.

## Success of Marshalltown Graduates

B. R. MILLER \*

This paper is based on data compiled in a study made to show the success in institutions of higher learning of graduates of the Marshalltown High School and of students of the Marshalltown Junior College. The report covers the four classes that graduated from the high school from 1935 to 1938, inclusive, and the students of the junior college for the same period. Transcripts of scholastic records were received from all colleges and universities attended by the students included.

College transcripts for 238 high school graduates were studied. The data show that 177 or 74 per cent of the 238 boys and girls are rated as average or above on the basis of their college records. Likewise, one-fourth of the same group is classified as below average. The students were divided into three groups: those who attended the Marshalltown Junior College only, those who entered the local junior college and later transferred to another college or university, and those who entered a college away from home.

A comparison of the percentages of the three groups just mentioned who are rated below average is strikingly in favor of the junior college transfers. Eight out of 56, or 14 per cent, of those who attended the junior college before entering a regular four-year educational institution are classified in the below-average group, while 23, or 31 per cent, of the 73 who had no junior college experience are rated as inferior. The record of the strictly junior college

group lies between the two just mentioned with 30, or 27 per cent, of 109 in the below-average classification. Thus it is safe to interpret the data to mean that the Marshalltown Junior College is serving as a selective institution for other colleges and universities.

Of the 777 boys and girls who completed the Marshalltown High School course from 1935 to 1938, 238 or 30.6 per cent later entered a college or university. Approximately 23 per cent of all high school graduates in the state later entered college. The higher percentage of the graduates of the Marshalltown High School who go to college may be explained by the presence of the local junior college.

More than twice as many of the graduates of the Marshalltown High School enrolled in the Marshalltown Junior College as entered a college away from home. This is shown in the following table:

777 graduates from 1935 to 1938 inclusive.
238 or 30.6% entered college.
165 or 21.24% entered Marshalltown Junior College. Fifty-six of these later transferred to another college.
73 or 9.39% entered some college outside Marshalltown.

A glance at the names and classifications of the students whose records were studied convinces one that students who make good scholastic records in high school repeat the performance in college and that those who make poor records in high school are poor students in college.

Students who transferred to other colleges and universities from the Marshalltown Junior College made creditable academic records. The tables show

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that 60, or 83½ per cent, of the junior college transfers did average or above average work in higher institutions.

Most of the students who complete the two-year requirement for graduation from the Marshalltown Junior College have further educational training in mind. Seventy per cent of the 174 junior college graduates since 1929 have continued in another institution.

The three state institutions in Iowa attract many more Marshalltown students than do any of the others listed. Less than one-sixth of the high school graduates entered colleges outside Iowa. Approximately 70 per cent of the students entered the local junior college and 56 of these later transferred to another college or university. Probably the three state institutions of Iowa should have more influence on the college-preparatory curriculum of the Marshalltown High School than any other institution of higher learning. However, the number of graduates who entered any one college or university during the four-year period is so small that it is doubtful whether the curriculum of the local secondary school should be determined to too great an extent by college entrance requirements peculiar to a single institution.

Similar information was obtained for students who transferred from the Marshalltown Junior College. Approximately one-fifth of the junior college transfers entered colleges located outside of Iowa. The three state institutions of higher learning drew more than two-thirds of the entire group, and the University of Iowa attracted about three-sevenths of all the students. Courses in the Marshalltown Junior College are accepted at full credit value by the University of Iowa, Iowa State College, and Iowa State Teachers College.

Certain conclusions are evident from

this study. (1) The preparation for college that the Marshalltown High School is giving its students compares favorably with that of other secondary schools. Approximately three-fourths of the 238 graduates of the local high school who entered college were rated as average or above average by the colleges and universities they attended. Among the transfers from the Marshalltown Junior College a less proportion of the graduates of the Marshalltown High School are rated below average by the institutions of higher learning than of those who graduated from other high schools. (2) The Marshalltown Junior College is preparing its students well for further educational training. Eighty-three and one-third per cent of the 72 transfers were rated as average or above average by the colleges and universities they entered. (3) The Marshalltown Junior College is serving as a selective institution for other colleges and universities. Less than one-half as great a proportion of those who had junior college experience before entering a four-year college were rated below average as of those who entered the higher institutions direct from high school. (4) The Marshalltown Junior College makes it possible for some young people to attend college who could not otherwise do so. Thirty and six-tenths per cent of the graduates of the Marshalltown High School go to college while the average for the state of Iowa is only 23 per cent. (5) Preparation for further educational training is the chief function of the Marshalltown Junior College at the present time. (6) Marks given by teachers in the Marshalltown High School and Junior College are a reliable basis for predicting the success of the students in college. (7) Iowa colleges and universities are preferred by the Marshalltown students.

## Streamlining a Social Science Survey

PETER MASIKO, JR.\*

There has developed in recent years a technique for furthering education outside the school system. The University of Chicago Round Table, which is now in its ninth year on the air, and the more recent Town Meeting of the Air (CBS), represent an attempt to utilize a manner of presentation which is stimulating, attractive, and educational. The report that commercial sponsors offered for the latter program the largest known sum offered for any radio program is indicative of the popularity and success of this medium in extending education and stimulating interest in current social, economic, and political problems. While this development has been going on for several years, little has been done to make effective use of the round-table technique in formal school education.

The use to which these developments have been put by some social agencies indicates the receptivity of such agencies to new and efficient forms of education. The school, like most established social institutions, is slow in accepting new ideas and social inventions. In view of this lag in accepting this tested technique, the social science department of Wright Junior College has conducted during the spring semester of 1940 an experiment in the use of the round-table discussion in the social science survey course. The experience with the three round tables conducted thus far indicates definite educational value, and it is felt that the program should be continued and expanded.

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The subject matter treated in the social science survey course provides many excellent subjects and topics which lend themselves admirably to round-table discussions. The controversial nature of the economic, political, and social problems discussed in the course insures a keen and lively participation by the students.

Three social science faculty members participated in two of the discussions conducted thus far, and two members participated in the third. The topics discussed were: (1) "Constitutional Reform and Social Progress"; (2) "Nationalism and Imperialism"; and (3) "Relief and Public Works." In the first two, two political science instructors and one economics instructor were the participants; in the third, a sociology instructor and an economics instructor participated.

In order to keep the discussion within reasonable bounds, and to cover as many points as possible, the participants met in advance, to agree on the points to be discussed and to indicate which side of the controversial issue each would take. On several of the issues there was general agreement and unanimity of opinion, but in order to make the discussion more interesting and to present all points of view, the participants took opposing positions, or at least indicated positions which differed from their own.

As the discussion progressed sufficiently, one of the participants summarized what had been said, and the conclusions reached. He then posed another question in order to direct the discussion into the desired channels. A

minute or two before the round table was concluded he summarized the entire discussion, and also indicated other related problems or issues which had not been covered but which merited mention. Since there had been no rehearsal or reading of notes, except for statistical information, this procedure encouraged spontaneity.

At the beginning of the hour it was announced that the students would be given opportunity to ask questions at the conclusion of the discussion, and they were urged to jot down their questions. Of the 53 minutes in the period, about 42 to 45 minutes were devoted to the discussion and the remainder of the session was given to questions from the floor.

The type of question asked by the students indicated that they had absorbed most of what had been said, and that they were able to disclose weaknesses in various statements made by the faculty members. The number of students who had questions to ask indicated that most of them had followed the discussion closely enough to ask pertinent, intelligent questions. Many of the students presumably had increased the value of the discussion to themselves by preparatory reading, which they had been urged to do.

It would appear from the comments made by the students and other faculty members who attended that, so far as holding the interest of the student is concerned, the informal, give-and-take discussion has the advantage over the customary, prepared and more formal individual lecture. Although it is less systematic, the informal discussion can be so directed as to bring about an organization of the material. The highlighting and emphasizing of a few important points will enable the student to retain as much as he might retain from

an organized lecture. Judging from the results carried over into the small weekly discussion sections, certainly as much information was retained from these round tables as is usually retained from the regular lectures.

Several weaknesses were also apparent. As already indicated, the material covered is necessarily limited, but this limitation may be overcome by additional outside reading by the students. There seemed to be a tendency to wander from the question at hand and to argue on minor points, but again this was remedied by the guiding of the discussion by one of the participants.

Taken as a whole, the experiment may be considered successful and worth while. It probably will be continued, and made a regular part of the two-semester survey course. It is not likely, however, that more than two or three round-table discussions in each semester of the survey will be given, because teaching programs cannot readily be arranged so that three teachers will have the same hours open for three periods during the day. Perhaps in time it will be possible to train the better students to participate in the round tables, thus increasing the value of the course to the students.

The system of inviting well-known authorities as guest lecturers to talk on topics taken up in the survey course offers another possibility. At least one guest lecturer has indicated his willingness, in fact his desire, to change his formal lecture into a round-table discussion, with two or more faculty members participating, so that the benefits of this technique may be enjoyed. It would seem that the addition of an outside authority to the round table would increase considerably its value and attractiveness to the students and faculty alike.

## An Effective Approach to Teaching Biology

NATHAN S. WASHINGTON \*

To teach biology, or any other field of subject matter, effectively, requires a psychological approach in organization of content and in method of presentation. Since it is not the function of the junior college to offer professional training, the suggested approach to the teaching of biology can be uniquely adapted to the junior college level. Anatomical, physiological, economic, and ecological detail should be utilized only when it yields *evidence* for the support of fundamental, vital principles of biology that can be applied to important problems of better living. If we expect to teach concepts that will enable students to employ the scientific method, to foster open-mindedness, to interpret natural phenomena in order that they have a better understanding of man in relationship to his environment, we must teach these and other specific educational outcomes. In other words, we must *teach for transfer* if we want transfer. Many investigations show distinctly that transfer does not result from loading the student with detail which is taught as an entity by itself. Scientific method can be taught only when the content of biology and the student activity are organized and directed to problematical thinking.

Usually, the content of a course is organized in terms of units from the simple to the complex or from the known to the unknown. For example, the succession of biological units from simple unicellular organisms (protozoa, schizo-

phyta) to the complex mammals constitutes a logical basis of organization of content to many instructors. But this "logical" approach cannot be justified educationally. To the instructor, and according to the morphology of the form studied, protozoa may be relatively simple. However, the beginning student of biology cannot see or touch a protozoan without the aid of a microscope. When the microscope is employed, students may not see the details that are so obvious to instructors. The simple-to-complex type of content organization may, therefore, be illogical. Other instructors attempt to justify the procedure from the known to the unknown. But although man or some other mammal which is well known to students may serve to initiate a course in biology, it becomes difficult to justify the succeeding unit, whether it be birds, insects or protozoa. In general, we cannot educationally justify a logical approach. It is not suggested, however, that each unit be a separate entity. On the contrary, units should be integrated and inter-related. This technique will depend largely upon the type of organization and upon the occasions that present themselves.

The approach suggested herein pertains to reflective thinking, problem solving or analytical thinking. Life cannot function without problems. Averill maintains that the only worthwhile life is a life which contains its problems; to live without any longings or ambitions is to live only half-way. Averill might have gone further in saying that

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no individual can live his life without facing problems and solving them. If we can teach our students how to solve their problems, we may expect them to live more happily in a society to which they can adjust themselves.

The problems chosen should be vital, challenging, and of keen interest to students. Former Associate Superintendent Tildsley of the New York City Public Schools reports on "What pupils got most out of," as follows: human physiology, 2586; heredity, 2161; evolution, 1756; eugenics, 1581; nervous system, 1505; reproduction, 1362; bacteriology, 1149; study of cell, 1023; nutrition, 794; civic hygiene, 736; biographies, 679. In the spring of 1936, a questionnaire pertaining to the syllabus in and methodology of biology was distributed to high school pupils who were studying biology. It was prepared and administered by the writer to the biology classes in the Theodore Roosevelt, Evander Childs, and Morris High Schools in the Bronx, New York City. In the first question, 33 topics were listed. Students were asked to place a check next to the topic which was most interesting to them. Of the 1167 papers, representing the three schools, 28.4 per cent voted for Man (structure and function), 28.0 per cent for Heredity and 22.7 per cent for Evolution as the most interesting topic. It is interesting to compare Tildsley's report of 1928 with that of the writer's of 1936. Man, heredity and evolution are the three topics of biology that are most interesting to students. These data suggest that we may create challenging problems of biology that would be centered around man, his behavior or overt activity. These types of problems would be meaningful to students.

Biology should not mean "bugs and flowers" but should be based upon those

principles and problems that control and reflect man's behavior. The following principles are listed as the bases for selecting problems in biology.

1. All students are individuals, and we must recognize this fact in selecting those materials and activities that can be adapted to the interests, needs, aptitudes, and abilities of individual students. Simply selecting this material will not make this a functional program. The methods and techniques of instruction play the vital role in teaching individuals for understanding and not for plausibility.

2. Biology is life and life is dynamic. Therefore, the content selected should be taught in terms of those every day problems that affect man's behavior in society.

3. The method of indoctrinating without adequate evidence is not a satisfactory procedure for reflective thinking. It is essential that the content be selected so that the scientific method may be employed: analysis and interpretation of data, the formation of a hypothesis, experiment, conclusions, and generalizations.

4. Although testing may be used to measure informational material, skills, attitudes, and for orientation purposes, the selected content should allow for the measurement of achievement, progress or success of completion.

The following problems constitute the syllabus of a course in biology which is taught for reflective thinking. To solve these problems one must utilize and apply the principles and generalizations of biology. These problems can be made more meaningful by allowing for individual pupil activity based upon interest. These problems are tentative and are revised from year to year to meet specific needs of the students.

1. *What is the relationship between*

*living things, of which man is a part, and their surroundings?*

2. *How do man and other living things obtain and use their food?*

3. *How is man affected by the plant world?*

4. *How do living things grow?*

5. *How do living things maintain their kind?*

6. *How does man behave?*

7. *How does man control his environment for health?*

8. *How does man control his environment for economic purposes?*

9. *How does man conserve his natural resources?*

10. *How does man control the improvement of living things?*

As teachers, we can only stimulate, guide, and direct the learning process. We should motivate individuals in terms of their interests. However, we can also create interest in many fields of biology by presenting challenging problems. Yet the mere presentation of challenging problems will not lead to analytical thinking. We should also guide the activity which solves the problem. For efficient reflective thinking it is essential (a) to get the problem or difficulty clearly in mind; that is, to get it clearly defined, and (b) to keep it clearly in mind. The problem must be definite. The teacher as well as the student should know exactly what the problem is about. If there is one difficulty which more than others hinders students in the solution of problems, it is the failure to catch their meaning and implications. Students very often undertake the answer of a question or problem before they really catch the force and significance of what is asked. Students should be led to realize that a start in the wrong direction adds distance to be travelled, and is worse than no start at all.

Once the problem is clearly understood and defined, the student should obtain information which contains the key to the solution. Thoroughness in securing such data is vital for problem solving. A good sense of judging and evaluating the selection of data pertinent to the solution is important. If students learn what data should be eliminated, retained, or emphasized as a clue, a hypothesis will be formulated. They must be taught how to utilize data and experiences in new situations or problems. New problems should arise from teacher-made and student-thought problems. Ways and means of application of these principles should be pointed out wherever feasible.

Significant data should suggest a hypothesis which is definite in the student's mind. It should be one that naturally and consciously presents itself as a solution of the problem, one that the student himself suggests and formulates rather than one suggested or dictated to him by authority.

Having a supposition clearly in mind, the thinker must evaluate it. Subjective testing involves trial and error procedure; a hypothesis which is rejected leads to the development of a new hypothesis. The power to exercise this ability, profiting from previous experience, is known as intelligence. In order to evaluate the hypothesis intelligently, one must have a fund of information or knowledge. An intelligent thinker has "foresight", i.e., he can predict the hypothesis which will solve the problem. Biology teachers have an excellent opportunity to promote this skill and technique in their students by "teaching" for the development of this skill.

After a hypothesis has been formulated, it should be tested objectively. Some problems may be tested objectively through the use of laboratory experi-

ments, controlled observations within and outside the school, historical observations and investigations, and statistical analysis. When the problem solver is certain that the hypothesis is valid, he will generalize his experience. The validity depends upon the verification of the hypothesis.

In conclusion, therefore, the approach to the teaching of biology should be psychological instead of logical. The units of content should be offered as vital, meaningful, and challenging problems. These problems should be solved through carefully guided reflective or analytic thinking. Wherever possible, these units should be inter-related. Principles and other generalizations should be taught in order that students will be able to transfer these skills and knowledges to new situations. When these standards are attained, efficient learning will take place and biology will be a most interesting, enjoyable, and valuable subject in the curriculum.

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#### ATTITUDE OF LABOR

All parents in the moderate income family are anxious about the opportunities for their children in the world today, both from the educational and work standpoints.

Boys and girls are not finding their places in the workaday world as early as they once did. The lad of 14 to 16 is not ready for industry these days, and industry is certainly not ready for him.

Few young people secure employment of a permanent nature before the age of 20, and then they find that preference goes to the person who has made the most of his educational opportunities.

With the preference being shown, the average working-man of Clark county should be pleased to know that this community is serviced by a junior college that means his son and daughter can have two years extra schooling while still living under the family roof and can save several hundred dollars for the slender family budget.

I am sure that working-men are solidly behind Clark Junior College and are pleased to see it expand in the direction of vocational and adult education.—Statement by L. O. Palmer, Secretary of Central Trades and Labor Council, Vancouver, Washington.

#### JUNIOR COLLEGE EXPANSION

Expansion of the city's junior college means a greater centralization of the interests of the people of the district in Wetumka. As well, it means the expansion of culture and strengthening the morale of the community by preparing its potential community leaders for a larger service. It takes that latter angle particularly because many of the students who enroll in the junior college here would be denied the advantages of higher education if they had to go to one of the state's colleges.—Editorial in Wetumka (Oklahoma) *Gazette*.

#### SOUTHERN ORANGE COUNTY

A special school committee of the Orange County (California) grand jury has recommended the establishment of a Southern Orange County Junior College. The establishment of a new junior college plant in or near Santa Ana has been vigorously debated for the past three years.

## General Education: Problems in Appreciations

H. E. MEHRENS \*

During the fall semester last year, the Eastern New Mexico College offered a course sufficiently unique to merit a certain amount of attention. This course was called General Education 101; Problems in Appreciations. It was the outgrowth of the efforts by a curriculum study committee in the Division of Appreciations to devise a core course which would assure students of adequate instructional guidance in three of the areas, apart from the vocational, in which all human beings are necessarily active.

*The method of learning considered.* The areas of human activity taken into account by the course are recreational expression, aesthetic expression, and ethical behavior. The committee concurred in the belief that, since best theory insists a student learns as the various aspects of environment are organized to his purpose, student purposes and problems were likely to be unique—that only the problem area should be regarded as common.

*The instructional guidance.* To the writer fell the task of guiding the first group of students. A syllabus was prepared. Three units were used to treat each of the three problem areas. The first of each group of units was concerned with the definition of student problems and present interests in its respective area. The second was concerned with establishing a criterion to use as a basis for judging the excellence of student behavior in each area and with the active evaluation of interests

and activities in each area. Unit III of each group was designed to help the student broaden his interests and activities in each area so as to bring these into accord with the standards he had come to accept. Instructional guidance must be assured of the worth of these. Each unit stated (1) objectives, (2) topics to be discussed, (3) suggested problems basic to class discussion, (4) exercises for out-of-class activity, and (5) references from which information relative to problems and exercises could be obtained.

The following sample statements from Unit V, "The selection of criteria for appraising the trend of aesthetic appreciation," will serve to illustrate one aspect of the instructional technique. Two objectives that the efforts expended on this unit hoped to attain were: (1) to establish a criterion for ourselves that enables an intelligent evaluation of the excellence of artistic effort; and (2) to appraise our own artistic and other aesthetic interests and activities. Enabling activities were listed such as: (1) to secure objective information relative to the criteria upon which authorities base their judgment; and (2) to organize all data secured so that logical inference concerning bases for our own judgment can be made. One of the topics serving as a basis for lecture and discussion was: "Self expression through Art." A sample problem was: Do you believe that aesthetical standards change with your opportunities for aesthetical experiences? An exercise was: State briefly what you demand in the way of beauty in (a) your dress, (b) your

\* Professor of English, Eastern New Mexico College, Portales, New Mexico.

home, (c) your friends. Another was: List the characteristics you believe to be inherent in (a) an excellent painting, (b) an excellent musical selection, and (c) an excellent literary selection. Indicate which of these are purely aesthetical. The references suggested were adequate for the purpose of securing information to use in solving the problems presented and in bringing awareness of still other, and perhaps more realistic, problems.

Instruction in this as well as the other areas was considered synonymous with guidance. The guidance of students related to three important matters. First, each student was helped to realize and to state clearly what his comprehensive problem pertinent to this activity field actually was. He was then assisted in breaking down such a problem so as to enable intelligent experimentation toward its solution. Next, as a first step toward appraising the excellence of an aesthetic problem, the student was guided in the process of developing adequate standards.

Finally, he was directed toward activity in the direct aesthetic experiences available. All the facilities of the college were placed at his disposal. Art exhibits, music hours, play readings, and the like were among the activities in which he could indulge as an observer or an auditor. Needless to say, his attention was directed to excellent (as defined by critics generally) radio programs, and whatever other programs aesthetic in nature the community offered. The field of literature, usually the most accessible for this purpose, was used to good advantage.

*The merits and weakness of the course.* The only entirely dependable method of appraising such a course, is scientific observation of its effect upon the students enrolled. Certainly, the

number and the type of students in this experimental group presented certain obstructions to any scientifically reliable conclusions. Obvious general merits, however, may be stated as follows: (1) Growth in critical ability as manifest by change in student response was secured. (2) Greater discrimination was subsequently shown in choice of leisure time activities. (3) More tolerance was subsequently shown toward aesthetical or recreational tastes and ethical attitudes of others. Another meritorious characteristic of the course was its encouragement of student initiative. A comparison of later with earlier test results showed this initiative to have motivated each student to increase the body of his information in each of the general activity areas. Defects apparent in the course may be stated as follows: (1) The course as prescribed was too broad. Any of the fields of human activity considered would have offered a sufficient number of problems to attack in a three-hour course. (2) The approach was not as direct as the growth status of the students in each area demanded. Language symbols were too often necessarily substituted for things. The philosophical approach is theoretically the one to use at the college level, but the inadequate background of certain of the students emphasized the fact that before such a course can be completely effective either one of two things must be done: The high schools must awake to the fact that their purpose can only be secured when curricula materials relevant to these purposes are chosen. Or, the lower division colleges must overcome present practical difficulties and use things as well as words when these bear upon the realistic purposes of students. Perhaps the best solution will come if both these are done.

*Conclusions.* Although, for the most

part, evidence as to the value of this course upon which conclusions might be based has been collected through the method of uncontrolled observation, it is sufficient to suggest the following conclusions: (1) Problem solving activity can be made as effective at the general college level as it has been made effective in the elementary schools and in the graduate seminar. (2) Such problem solving should utilize not only the verbalized information to be secured from books, but all available materials and processes relative to the problems to be solved. (3) Each area of human activity should serve as the basis for at least one course. In no case should one course attempt to deal with problems in more than one area, although these areas are closely related.

The course in the Eastern New Mexico College has proved sufficiently effective, in the opinion of the faculty people working most closely with it, so as to stimulate the offering of a similar type course in which the problems serving as the centers of reference for the organization of material are in the other areas of human activity, excepting the vocational. Since each student may choose his problems relative to the home, those relative to the conservation of natural resources, etc., it seems likely that the task of guidance in this course will get completely out of bounds. No single course can successfully treat problems in more than a single activity area. The experience with our first functional course in general education made this clear. Yet in our ambitions to provide general education experiences in every area, we seem, for the moment, to have forgotten.

As time goes on, it is expected that faculty interest in general education will increase. Study will bring knowledge of the psychological facts and

philosophical concepts underlying the type of approach our general education courses are attempting to follow. Eventually, our own experimentation with these courses will result in continually increasing success in guiding students to a more effective interacting in the fields of experiences outside their more specialized vocational activity.

#### NEED MORE JUNIOR COLLEGES

In an address on "Illiteracy in the United States" in the United States House of Representatives April 10, Hon. Gerald W. Landis, congressman from Indiana, spoke in part as follows:

"Because all surveys and studies point clearly to the fact that there will be an increasing demand for highly skilled workers, I believe that we must plan now to educate the child of average ability until he is 19 or 20. The average boy and girl in 1940 needs schooling through junior college and should be ready for a definite job or jobs when he or she leaves school. I believe that we need more junior colleges."

#### RESPONSIBILITY FOR CULTURE

Dean Raymond D. Chadwick of Duluth Junior College, Minnesota, addressed the national convention of the American Interprofessional Institute on "The Responsibility of the Learned Professions for Cultural Leadership" in Duluth in October.

#### ST. BEDE JUNIOR COLLEGE

Announcement is made of the establishment of St. Bede Junior College at Peru, Illinois, under the auspices of the Benedictine Fathers. The establishment of the junior college has been in response to popular local demand.

## *Reports and Discussion*

### SOUTHERN ASSOCIATION

The first meeting of the newly organized Southern Association of Junior Colleges will be held at the Peabody Hotel, Memphis, Tennessee, December 10, in connection with the annual meeting of the Southern Association of Colleges and Secondary Schools. The theme of the afternoon session will be Junior College Instruction, with an address by Dr. E. V. Hollis of the American Council on Education. The dinner session will be devoted to an address by Dr. Walter C. Eells, editor of the *Junior College Journal*, upon the work of the Commission on Junior College Terminal Education and to a general discussion of the subject of terminal education.

The Southern Association of Junior Colleges was organized at the time of the last meeting of the Southern Association of Colleges and Secondary Schools at Atlanta, Georgia, in April, 1940. It is the outgrowth of informal meetings of junior college executives in attendance upon the annual meetings of the Southern Association. The decision to organize formally resulted from a desire for increased opportunity to consider problems particularly related to junior colleges. It is expected that this organization will stimulate interest in membership in the American Association of Junior Colleges and will encourage junior colleges in the South to qualify for membership in the Southern Association of Colleges and Secondary Schools. The organization will function as an affiliate of the latter. James L. Robb, President of Tennessee Wesleyan College, is presi-

dent; Curtis Bishop, President of Averett College, Virginia, is secretary.

### ILLINOIS MEETING

Plans for the Chicago meeting of the American Association of Junior Colleges and for the eighth annual Illinois junior college conference occupied the greater part of the time at the initial meeting of the Illinois Association of Junior Colleges held in Chicago October 19. Reports of 18 faculty conference committees were considered. The fall conference is to be held at Woodrow Wilson Junior College Saturday, November 16. Dean William Conley of Wright Junior College is chairman of the Illinois Committee on the Chicago meeting of the national association, scheduled for February 27 to March 1, 1940, at the Stevens Hotel.

### TERMINAL ENROLLMENTS

Almost exactly one-third of the students in junior colleges of the United States are enrolled in terminal curricula, mostly semiprofessional and vocational, according to the data in *American Junior Colleges* as summarized by the research staff of the Commission on Junior College Terminal Education.

"Terminal curricula," according to the Commission, "are designed for students who wish in one or two years to gain an understanding of their intellectual, social and civic environments, to explore several fields as an aid in making occupational choice, or to acquire vocational training which will lead to employment in semiprofessional fields."

The report is based on courses for 1938-39, as given by 426 institutions, of which 293 offered terminal curricula. Total enrollment in terminal curricula in these institutions was 41,507.

More junior college students are studying business or secretarial work than any other vocational subject, the report shows. Two-year courses in general business were offered in 1938-39 by 183 junior colleges. There were also 164 secretarial courses, 31 in salesmanship, 12 in insurance, 11 in accounting, seven in merchandising, four in hotel and restaurant management, four in banking and finance, one in business management and one in business law. Total enrollment in these business curricula was 14,511.

Forty-one junior colleges reported two-year curricula in aviation. The report did not cover the pilot training courses of the Civil Aeronautics Authority in 109 junior colleges.

Terminal courses in music were given by 141 junior colleges, though the enrollment in these courses was only 1,409, as compared with 1,550 enrolled in 51 two-year courses in general engineering.

Technical training, as reported, included mechanical engineering in 29 junior colleges, electrical engineering in 25, civil engineering, 16; radio engineering, nine; chemical engineering, eight; building trades, eight; auto mechanics, six; laboratory technique, six; oil technology, five; drafting, three; mining, three; agricultural engineering, two; air conditioning, two; geology, two; navigation, two; and welding, one.

The training of medical secretaries is a new field, now recognized by two-year courses in 33 junior colleges. Librarianship is taught in 47, social service in 28, recreational leadership in 20,

mortuary science in 10, religious education in eight.

Police officers are trained in six of these institutions; military service is given as a two-year terminal course in three, and civic health service in two.

Four give two-year courses in printing, three in cosmetology, four for parish secretaries, and one in physical therapy.

Of the fine arts other than music, art is given as a two-year course in 97 junior colleges, architecture in 29, speech and dramatics in 20, photography in 10, interior decoration in three, and fashion illustration and costume designing in three.

Teaching is a two-year course in 138 junior colleges, and physical education in 62. There are 106 institutions offering home economics on this basis, 86 offering journalism, 59 nursing, 57 general agriculture, 32 forestry and seven floriculture.

Terminal curricula in general culture are given in 137 junior colleges. This means that the 6,205 students who take these courses, even though they are not vocational, are not planning to go beyond the sophomore year.

#### CUSTER COUNTY GROWTH

The Custer County Junior College opened its second year with a 78 per cent increase in enrollment over the year 1939-40 for the date Sept. 18, 1940, as compared with the same date a year ago. A total of 139 students have matriculated for the present year as compared with 78 a year ago. The increase in enrollment is probably due to a vigorous advertising program in the local community, which consisted of public addresses; three public receptions for parents and students of the locality; the use of two bulletins published by the

American Association of Junior Colleges: *Why I Am Attending a Junior College and Shall I Attend a Junior College*; the use of reprints from a recent article in *Cosmopolitan Magazine*; the development of the Civilian Pilot Training Program, and the establishment of adult education.

A small class was graduated from the junior college at the end of the first year. This class was made possible by transfer from other institutions.

Last year an experimental program of evening classes was begun. In the light of the experiences, a more complete program was started this year, and adults as well as young people of the community have found these courses appealing. The faculty of the college has been expanded this year to take care of the increased enrollment.

G. H. GLOECE  
Dean

#### GROSS EXAGGERATION

My dear Mr. Eells:

Allow me to call to your attention two errors in the news item of the September issue of the *Junior College Journal* concerning presentation of a portrait to Ward-Belmont last commencement. Your esteemed publication referred to former President Benedict as "the late." Mr. Benedict is now treasurer of Vanderbilt University. He became such shortly after he resigned the presidency of Ward-Belmont. If the news item referred to should come to his attention, I am sure that he would share Mark Twain's feeling that the reports of his death were greatly exaggerated. Incidentally, the gentleman's initials are A. B. A brief correction will be appreciated.

J. E. BURK  
Ward-Belmont School      President  
Nashville, Tennessee

#### DANGEROUS TRENDS

Dear Dr. Eells:

Thank you for sending me the reprint of Dr. Zook's address on the Junior College Movement. I thought it was splendid when he gave it in Columbia, and I have reread it with interest. I agree with all Dr. Zook says and I think the junior college has a great contribution to make in the transition from high school to college. This adjustment can best be made by a smaller institution where immature students can have some guidance and supervision.

There are some trends in the present junior college movement which seem to me to be dangerous. I realize that these conditions do not apply to *all* junior colleges at the present time, but I believe there is a possibility that other seemingly less successful institutions may decide to change their policies and attempt to imitate these institutions which appear to be flourishing like the green bay tree! I will merely list these suggestions. There should be:

1. Emphasis on the fact that junior colleges are *educational* institutions and not glorified country clubs.
2. Some regulation of the mad competition to secure students so that published rate schedules will be maintained and cut-throat practices eliminated; an ethical code be established so that students already registered in one college will not be lured away by unfair propaganda or reduction in rates; the art of selling the junior college may be placed on a more dignified basis; the art of subordinating educational standards may be eliminated. This has reached the "nth" degree in some institutions.
3. The reduced birth rate will mean fewer students of college age in the

immediate future and should be considered by college presidents before embarking on any extensive program.

4. Much benefit to the freshman and sophomore students would result if the state universities and junior colleges would cooperate so that the junior colleges could furnish the first two years' work. This would mean that the junior college representatives would stop emphasizing that their graduates could secure teaching positions and would stress the fact that more education is needed in this competitive world.

These are a few suggestions which occur to me.

Cordially yours,

LUCINDA DE L. TEMPLIN\*

Radford School for Girls,  
El Paso, Texas

#### WILDLIFE MANAGEMENT

The establishment of Goddard College at Plainfield, Vermont, led to a search for opportunities of providing educational services to the state and regional area which would not duplicate those of existing institutions and would meet a real need.

There seemed to be such an opportunity in the field of conservation and management of wildlife resources, a branch of the conservation movement which has not advanced so rapidly as its other phases. Consultation with conservation officials and other experts in the subject led to the conclusion that such a venture was worth trying. The junior

college is an appropriate level for training of the semi-technical workers who will be needed as the profession grows.

In an uncharted field specific technical training is inappropriate and impracticable. Consequently it was decided to make the program of a general nature, which would be valuable to workers in a variety of specialized tasks and which would also be of service to students who were interested in nature writing or photography, or who merely desired to gain greater enjoyment of outdoor life.

The wildlife program occupies a third of the time of the students enrolled, leaving the remainder for work in related sciences and for subjects of more general interest. The procedure chiefly employed is that of setting up a definite problem of management of an area for the resident wildlife species and of gaining experience directly in connection with this problem. Questions arising from work in the field motivate and direct reading and work in the laboratory.

One such problem has been organized around the forested part of the College's 200-acre country estate. The planning was done cooperatively by the students and the instructor. It involved considerable reading, discussion, and selection of methods of work, and developed talent for improvising new methods to suit the particular problem. The area has been surveyed and mapped. Several methods of animal census have been tried and the results compared. A trail has been cleared along which regular observations of visible activities are being made and recorded. This work provides an opportunity for experience in interpretation of tracks, for photography, and for study of the habits and life histories of the species under observation. A season's records will make possible a fairly accurate determination of the localities uti-

\* NOTE: Miss Templin was one of the group of 34 who attended the St. Louis conference in 1920 which resulted in the organization of the American Association of Junior Colleges. She was one of the seven survivors of that meeting who attended the twentieth anniversary exercises at Columbia last February.—Ed.

lized by each species for food, cover, and other requirements.

The plant types in each part of the area will be identified and plotted on a map. Comparison of this type map with the accumulated records of animal activities will suggest relationships which may be compared with results obtained by studies in other regions. They may also be checked by further intensive field observation.

The comparison will suggest possible changes in the environment which might make it more habitable for some of the animal species and these will be studied to determine which would be practicable, considering cost and probable effect on the productivity of the area in wood and lumber. Detailed plans will be made for such changes as seem most practical and the cost of each will be estimated. At the proper season, these plans which may involve planting, clearing, or winter feeding will be undertaken on portions of the area leaving suitable control plots to match each alteration. Records of the cost of the work will be made.

Another season of observation will begin to show evidences of the results of the changes which have been made and will provide data for studying the relative effectiveness of the measures undertaken and their results in terms of increased productivity. A similar program, in cooperation with the Vermont Fish and Game Department, is being carried out on a trout stream. Further land and water areas will be included as it becomes desirable to give new students the opportunity to share in planning and carrying through projects from the beginning.

If such a program results in an increase in the game population it may prove to be of considerable value to the state by suggesting similar practices on a

large scale. Its value as an educational method lies in the fact that it provides the students with actual experiences which as far as possible duplicate those which they may expect to encounter in later work.

The program provides a real test of interest in this field of work. It develops initiative, resourcefulness, and accuracy on the part of the student by giving him a large share in planning, carrying out, and evaluating his work. It requires constant consideration of the principles which lie behind his immediate tasks. It leads to a frequent consideration of the social value of what he is doing and to the means and methods which can be used to bring such values to the public consciousness.

CRANSTON H. JORDAN  
Instructor in Science  
Goddard College

#### JUNIOR COLLEGE SALARIES

In order to determine the prevailing salary conditions in public junior colleges of average size, a study was made in 1938-39 of current salaries in 50 such institutions. Since a number of the participating institutions have requested that the results be made available, some of the significant facts are presented here.

The colleges studied included only those institutions that were of average size and classified as public at the time the inquiries were sent out. In addition, all Minnesota junior colleges were included. As a result, out of the 50 studied, eight had enrollments of over 275.

Of the 69 questionnaires sent to junior colleges in different sections of the country, 53 replies were received from 17 states distributed as follows:

California	.....	7
Colorado	.....	1

Georgia	1
Illinois	3
Iowa	4
Kansas	2
Michigan	2
Minnesota	12
Mississippi	1
Missouri	4
Nebraska	1
New Jersey	1
North Dakota	1
Oklahoma	3
Pennsylvania	4
Texas	3
Washington	3

The median enrollment was 187; lower quartile, 119; upper quartile, 237; range, 25 to 651. Most of the institutions had an enrollment of 75 to 275, only three falling below 75. These three were in the Minnesota group included for state comparative purposes.

The questionnaire asked for the annual salaries of the dean, registrar, special instructors, and academic instructors as well as a copy of the salary schedule. Since so few of the colleges included any information concerning the registrar and since different administrative arrangements prevailed, there were no results of value concerning that position. In some cases the registrar is the secretary of the college, receiving anywhere from \$500 for 10 months to \$2500 and living for 12 months service. In other cases, where an instructor acts as registrar, he receives additional pay for those services. Most of the replies received made no mention of this position. A number stated that the dean is also the registrar. The same conditions held true for the differentiation between academic and special instructors. Some of the colleges made no distinction, while others used special high school instructors for college work. Median and quartile salaries for deans and instructors were as follows:

	Dean	Instructors
Upper quartile	\$3300	\$2243
Median	2900	1950
Lower quartile	2450	1600

In many of the smaller institutions instructors teach in both the high school and junior college. In such cases there was a natural tendency toward lower salaries, bringing down the general average. Three colleges stated that men and women differ as to salaries received; two stated that all teachers were paid the same regardless of sex.

The annual salary for instructors within the various colleges ranged usually from \$1600 to \$2400, the average range in the 24 institutions which indicated a minimum and maximum salary being \$1555 to \$2375. Only 10 of these, however, indicated that they had any definite salary schedules in operation.

In all of the 10, experience was a factor in the schedule, although in most cases experience in other institutions was definitely limited in determining the salary scale. Six of these colleges considered the attainment of higher degrees in determining the scale. Four considered additional advanced preparation exclusive of or before the attainment of the M.A. or Ph.D. degree. Only one included in its schedule the factors of significant achievement or exceptional merit and special duties.

The annual increases in the colleges operating under a set salary schedule varied from \$45 to \$120 a year until a fixed maximum was reached. The time for a beginning instructor to reach the maximum required from three to 18 years. In some cases the increments decreased during the last years.

A general desire was expressed for a salary schedule, although one institution made the comment that "we never could afford one." Another stated that "we have no salary schedule but try to adjust salaries on the basis of training and experience."

Of the junior colleges which answered the question pertaining to the length of the term, 17 employed their instructors for nine months, four for ten months, two for twelve months, and one for nine and one-half months. The deans were employed for twelve months in nine institutions, for ten months in six, and for nine months also in six cases. In the nine-month group an additional amount was, in some cases, paid for summer work. Statements indicated that policies varied in regard to the administrative head:

Time off given for summer school and three weeks' vacation.

Thirty days' vacation allowed.

The dean does promotional work in the summer with expenses paid.

An additional set amount is paid for transportation.

The dean (and instructors) receive an additional amount for summer session and evening school.

In determining the salaries of instructors who teach both in the high school and college, some institutions compute the proportion of the college and high school load taught and set the amount to be paid for the college fraction of the work according to the prevailing schedule. Other plans included paying, above the high school schedule, \$100 for each three credit college course taught; \$150 for each college course; \$2 per credit hour per student for a semester for special instructors; and a bonus to outside teachers for taking care of activities.

VERNON E. ANDERSON

Worthington Junior College  
Worthington, Minnesota

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#### COLLEGE IN A LIBRARY

Jasper, Alabama  
Sept. 7, 1940

Dear Dr. Eells:

Walker College has had a turn of good fortune. The county Board of Revenue

has granted us the use of the second floor of the new public library building for our school. This gives us fine new quarters for the school and a library of 27,000 volumes on the floor below us. The building was erected at a cost of \$100,000 and is quite a change from the dark and musty quarters that we had. Here also is an idea. Since many new libraries are being built, why could not the thought take shape in action that where small junior colleges are to be housed, the plan to house them in the library be carried out? That would eliminate much of the cost of the library and yet give the school immediate facilities.

CARL A. E. JESSE  
*President*

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#### COLBY SURVEY PROJECT

The Department of Social Studies at Colby Junior College has been of the conviction that its work should be integrated with the general life of America in some more tangible form than merely classroom discussion. In consequence, in 1938-1939, it arranged a field trip to portions of the South. Following a period of intensive study and preparation, some two dozen students and two instructors took a 14-day bus trip through 10 States, surveying as competently as possible the actual social, economic, and religious conditions.

For the academic year 1939-1940 a somewhat less extensive program was arranged. Because of fiscal and other considerations it was determined to make an intensive study of the 38 towns in New Hampshire comprising the so-called Dartmouth-Lake Sunapee Region, one of six in the State organized by the Planning and Development Commission.

In making up the groups, each of the five instructors in the social studies de-

partment (psychology, religion, sociology, economics, history) selected five or six students from his or her classes on the bases of scholarship and ability in the field. Shortly after November 14, 1939, 27 students and the five instructors were at work on the details of the endeavor.

Each specialized group held meetings at regular intervals, and the entire personnel of the Regional Survey came together at stated periods for general group discussion and comparison of findings. At the latter meetings there were present at various times Professor Charles Melvin McConnell of Boston University, one of America's leading authorities on the rural church; Mrs. Hilda L. Ives, for many years president of the New England Town and Country Church Commission; Stanley Spiller and the Reverend H. W. Buker, respectively secretary and president of the Dartmouth-Lake Sunapee Region; Dr. Richard G. Wood, State Supervisor of the Historical Records Survey of the Works Project Administration; and others.

In addition to the actual visits of these persons to the campus meetings of the Regional Survey group, the following agencies or persons cordially co-operated in the program of the project: the Russell Sage Foundation of New York City; the First National Bank of Boston; the New Hampshire State Planning and Development Commission, especially its Planning Director, Frederick P. Clark; the N. H. Bureau of Labor; the N. H. Employment Office; the N. H. Public Service Commission; the N. H. State Tax Commission; the N. H. Bank Commissioner; the N. H. Forestry and Recreation Department; the Engineering Experiment Station of the University of New Hampshire; the N. H. State

Board of Health; the New England Council; and the town clerks of the 38 towns in the Dartmouth-Lake Sunapee Region.

Interest in the Regional Survey extended well outside of the local area specifically studied. *The New York Times* in its issue for December 31, 1939 carried a descriptive story of the project. Dr. Erling Hunt, editor of *Social Education*, requested a 2500 word summary of the entire program. The newspapers of New Hampshire and New England were interested in the plan, and the publication of the Dartmouth-Lake Sunapee Region carried a feature story thereon.

On Sunday, April 14, the official finale of the Regional Survey began. This was a two-day bus trip covering the majority of the towns in the region, and including all those which had been studied by the various groups. Twenty-five students and three faculty members, accompanied by Mrs. Squires, Miss Elizabeth Blood as official photographer, and representatives of the Dartmouth-Lake Sunapee Region and the State Planning Board, comprised the party. Despite certain difficulties which arose in connection with the spring mud and high water, the trip was a great success.

Following the conclusion of the Survey reconnaissance trip, the official reports of the project were written. They are contained in a 32-page booklet *Report of the Survey Project 1939-1940* (Colby Junior College Reports in the Social Studies, No. 2, New London, New Hampshire, 1940). In this monograph separate reports are presented by the economics, psychology, religion, and sociology groups.

J. DUANE SQUIRES

Colby Junior College  
New London, New Hampshire

## *The Junior College World*

### SECURES BARNUM ESTATE

The Junior College of Connecticut has been unusually fortunate in securing possession of "Marina," the former home of P. T. Barnum at Bridgeport. Although assessed at more than \$100,000, the six-acre plot and buildings were secured for only a very small token payment through the generosity and civic attitude of the heirs of the W. H. Marshall estate, which controlled the property. Included are a large residence and numerous auxiliary buildings which can be adapted to college use after considerable alteration and repair. It is planned to raise a fund of \$100,000 for alterations and for the construction of a new classroom unit adjacent to the residence.

### LOS ANGELES DENTAL AIDES

Los Angeles City College classes for dental assistants were chosen to appear at the Forty-Third Annual Southern California State Dental Association Convention in Los Angeles in October, to hold classes for demonstration purposes and also to distribute pamphlets discussing their work at City College.

The Dental Association sponsors the classes and each Thursday has one of its members appear in the newly remodelled classrooms with a patient. The girls are all enabled to gather actual training in dental technique while the patient squirms. The classroom has a three-walled waiting room, business office, and operating room, which are all connected as in a practicing dentist's quarters. Through these media, the

students are able to observe the full participation of a dental assistant in handling the patient, from his entrance until his departure. The girls are trained for reception, business, and operating from assistance through actual observation rather than the pretense of having rooms, doors, desks, etc.

### ALTOONA ADVISORY COMMITTEE

An advisory committee of representative citizens of Altoona has recently been appointed to aid the Altoona Undergraduate Center, latest unit in Undergraduate Centers of the Pennsylvania State College. E. C. Gegenheimer, superintendent of the Middle Division, Pennsylvania Railroad, was elected chairman, with W. S. Gardner, president of Altoona Works local, No. 42, Brotherhood of Railroad Shop Crafts, as vice-chairman. Chosen as secretary was T. Stewart Goas, assistant administrative head of the college, and Robert L. Thompson, secretary of the Altoona School District, was elected treasurer.

Other members of the committee are J. B. Brooks, president of the Middle Division local, No. 3, Brotherhood of Railroad Shop Crafts of America; Dr. Levi Gilbert, superintendent of schools; R. E. Eiche, administrative head of the Center; J. E. Holtzinger of the Chamber of Commerce; J. K. McNeal of the Altoona works of the Pennsylvania Railroad; E. J. Master, president of the Inter-Club Service Council; F. G. Weber of Altoona Works Local, No. 42; and J. F. Meck of the Altoona School Board.

The advisory committee will aid the

local unit of the college in all possible ways and will act as a coordinating body between the college and the community. In its first six weeks of operation it has provided for substantial funds for the furnishing of a men's lounge, and the purchase of reference books for the library.

#### **WILLIAM WOODS PHYSICIAN**

William Woods College, Missouri, has made a significant extension this fall in its student health program. In addition to the regular nursing service and its local medical facilities it has brought to the college campus a full time resident physician who has installed a complete program of health service. Dr. Fleta Williams, the new physician, received her A.B., M.A., and M.D. degrees from Stanford University. She served during the world war in the Stanford women's unit sent overseas. She has taken special work at Harvard and was at one time associated with the Massachusetts Children's Hospital. At William Woods her services will extend into the counseling and clinical fields.

#### **CONCORDIA DORMITORY**

More than 1,700 persons attended the annual Reformation Day exercises at Concordia Collegiate Institute, New York, September 29, when a new dormitory for women, Koepschen Hall, was formally dedicated.

#### **TOME OPENING POSTPONED**

Opening of the Tome Junior College of Administration, Maryland, which was announced for this fall, has been postponed until September 1941 because suitable housing facilities at Port Deposit were not available this fall, according to word received from the president, Dr. Trentwell M. White.

#### **NEW MONTANA COLLEGE**

Dawson County Junior College at Glendive was formally authorized as the second local junior college in Montana by the state board of education September 9. The first one under the new law, the Custer County Junior College at Miles City, was organized last year. All preliminary work for inaugurating the junior college at Glendive had been done in advance of the formal approval by the state board. Lincoln J. Aikins is dean.

#### **IMMACULATA HEAD**

Sister St. Philomene has succeeded Sister M. Genevieve as president of Immacula Junior College, Washington, D. C.

#### **OKLAHOMA PROPOSALS**

Oklahoma, like Texas, has a problem in connection with its multiplicity of second-rate senior colleges which do not render an educational service commensurate with the appropriations they require. In Oklahoma, as in Texas, any move toward a solution encounters the earnest opposition of the communities in which the state schools are located.

One member of the Oklahoma legislature, Wilson Wallace of Ardmore, has worked out a program of reorganization for the state's schools. His plan, as described in the *Oklahoman*, would create two systems, one headed by the state university, the other headed by the state A. & M. college. The university setup would include the university itself, a separate liberal arts school, and eight junior colleges, some of which would use the plants of existing teacher colleges. The A. & M. setup would include Oklahoma A. & M. college, a regional college at Panhandle, and three agricultural junior colleges. Each system would have its own board of regents.

Under this plan, most of the freshman-sophomore instruction would be given in the junior colleges, with the two main senior schools' enrollment consisting principally of juniors, seniors and graduate students. Describing his plan, Wallace undertakes to show that the present teacher colleges, converted into junior colleges, would have larger enrollments—and of course be of more value to their respective communities—than at present.—Editorial in Ardmore (Oklahoma) *Ardmoreite*.

#### NEW JACKSON DEAN

William N. Atkinson is the new dean of Jackson Junior College, Michigan. He takes the place formerly occupied by F. C. Seamster.

#### MESA MUSEUM

Mesa College students returning to their geology classes in the autumn at Grand Junction, Colorado, found new material to work on, obtained when a local expedition spent five days hunting fossils in the region east of the city. E. L. Holt, head of the geology department, headed the expedition. The new specimens include the scapula of a brontosaurus, spinal and neck vertebrae, leg bones, and a fine specimen of a pelvic bone, showing the depression in which the femur fits.

It is the policy of the geology department to secure as many specimens of this sort as possible, to keep them in the region where prehistoric animals roamed some 200 million years ago. In the past fine specimens have gone from Colorado to eastern museums, where travelers from Western Colorado can see them and read their inscriptions. That, to Mr. Holt, seems like taking, say, the Cliff Palace from Mesa Verde to Central Park. He and the hundred or so stu-

dents in his classes, backed by the interest of the local mineralogical society, intend to leave for those who come after them some well cared for bones which help to piece together the geological history of the region.

"We have a fine beginning, too," he says, adding that the museum in the state university has nothing to compare with the pre-historic bones in the Mesa College museum.

#### CISCO OPENING

Presidents of six colleges in Texas participated in exercises signalizing the opening of the new publicly controlled Cisco Junior College, Texas, September 17. The exercises were held in the open air in front of the college main building in the evening. The principal speaker was Dean J. Thomas Davis of John Tarleton Junior College. Dean Davis is a former president of the American Association of Junior Colleges.

#### ENGINEERING FOR DEFENSE

New industrial chemical laboratories, set up in the chemical engineering department to meet defense needs, have been installed at Essex Junior College, New Jersey. Dr. Arthur H. Rosinger, a pioneer in color photography who taught in several European countries, is in charge.

The research laboratories, President Adolph M. Koch announced, have been endowed and sponsored by leading industrial figures in the state and will be used by the faculty to study defense problems in the chemical field. The chemical engineering department will sponsor a series of forums. A two-year course will lead to a certificate in chemical engineering.

A new two-year mechanical engineering course also will lead to a certificate.

The student must fulfill a period of apprenticeship and must pass an examination drawn up by his employer before he qualifies.

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#### JONES COUNTY HEAD

J. B. Young has succeeded M. P. Bush as president of Jones County Junior College, Mississippi.

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#### MONMOUTH LIBRARY

A recent analysis of the library of 3,032 volumes of Monmouth Junior College, New Jersey, shows that 39 per cent has been published in the past ten years. In the social science field (300's of the Decimal classification) 58 per cent of the titles have been published in the last decade; in the natural science field 47 per cent. Percentage distribution by date of publication is given as follows:

Before 1900 or no date.....	11%
1900-1904 .....	3
1905-1909 .....	3
1910-1914 .....	4
1915-1919 .....	5
1920-1924 .....	13
1925-1929 .....	22
1930-1934 .....	20
1935-1939 .....	19
	—
	100%

A comparison with the Mohrhardt *List of Books for Junior College Libraries* shows that 39 per cent of the titles in the Monmouth library are given in this well-known reference list. In the field of fiction the percentage is 50, while in that of general reference works it rises to 87.

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#### FROM CONGRESSMAN LANDIS

"I believe that we must plan to educate the child of average ability until he is nineteen or twenty," says Gerald W. Landis, member of Congress from Indiana. "The average boy or girl in

1940 needs schooling through junior college, and should be ready for a definite job or jobs when he or she leaves school. It is my sincere belief that we need more junior colleges." Congressman Landis made this declaration in his special column "Indiana and Washington News" published in the *Franklin (Indiana) Star*, April 17, 1940.

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#### DEATH OF MISS GILDERSLEEVE

Miss Mary L. Gildersleeve, co-principal of Gunston Hall Junior College, Washington, D. C., died at the Johns Hopkins Hospital, Baltimore, September 21, after an illness of several months. Miss Gildersleeve had been associated with Gunston Hall for the past 23 years. She was the niece of the late Dr. Basil Gildersleeve, famous Greek scholar, of Johns Hopkins University.

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#### TO SOUTH AMERICA

Dean T. W. Steen of Columbia Junior College, Washington, D. C., has resigned to accept a position as educational secretary for the Seventh-Day Adventists in southern South America. His territory includes Argentina, Chile, Uruguay, and Paraguay. Dean Steen sailed from New York October 5 to take up his new duties. His headquarters will be at Buenos Aires.

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#### ILLINOIS PROPOSAL

Plans are being considered for the organization for a publicly controlled junior college at Maywood, Illinois, for Proviso Township.

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#### CALIFORNIA BIRDS

A collection of mounted specimens of Sonoma county birdlife that won first prize in taxidermy at the Sonoma County Fair in 1884, was recently presented to the Santa Rosa Junior College, Calif.

fornia, museum by Mrs. Bertha Wetmore. The collection, comprising more than 50 native birds, collected more than half a century ago, was made and mounted by Mrs. Wetmore as a small girl.

#### DICTIONARY FUN

Miss Teresa Ferster, instructor in English in Stockton Junior College, is the author of an article entitled "Dictionary Fun," published in the 1940 annual number of *Youth Today*. Miss Ferster takes the point of view that you can be "word wealthy" but "not if you go at it in the old-fashioned manner." The article discusses the relationship of vocabulary to general success in vocational life and sets forth the six steps to follow in developing knowledge of words.

#### COGSWELL'S PRESIDENT

George B. Miller, for many years president of Cogswell Polytechnical College, California, has retired. His place has been taken this fall by Robert W. Dodd.

#### WORTHINGTON DEAN

Vernon E. Anderson, who organized the Worthington Junior College, Minnesota, in 1936, has resigned his position as dean in order to carry on graduate study at the University of Colorado. His place has been filled by the selection of Marvin C. Knudson.

#### GYMNASIUM FOR WOOD

A new \$20,000 gymnasium was completed on the campus of Wood Junior College, Mississippi, during the summer. The building is 132 feet long and 71 feet wide. It is of brick and steel construction and up to date in every way. The college also received recently a new Vitaphone moving picture projector and a new Hammond electric organ.

#### DELAYED BY WAR CRISIS

Construction of a junior college in the Napa-Vallejo area in California is unlikely until the war crisis is past, according to Principal John Alltucker of the Vallejo high school, speaking before the Napa Kiwanis Club.

#### WILLIAM WOODS DEAN

William A. Brandenburg, Jr., began his work as dean of the faculty of William Woods College and head of the department of history with the beginning of the fall semester early in September. Mr. Brandenburg was formerly a member of the faculty of Ohio State University.

#### MCNEESE JUNIOR COLLEGE

Lake Charles Junior College, Louisiana, organized last year, with an initial enrollment of 150 students, has been renamed John McNeese Junior College. Its dean, Dr. Joe Farrar, has resigned to become director of higher institutions with the state department of education.

#### NEW ARKANSAS PRESIDENT

B. E. Whitmore has succeeded John Baumgartner as president of the Junior Agricultural College of Central Arkansas.

#### FOR REALISTIC EDUCATION

"Do you favor fewer and better state teachers' colleges rather than the continuation of the nine existing institutions?" was the query put by the Massachusetts League of Women Voters to candidates for senator from the Fifth Middlesex District and for representative from the Seventh Middlesex District. Although the candidates indicated a desire for efficiency and economy, they did oppose restricting educational opportunity.

"I favor fewer and better state teachers' colleges giving more emphasis to broad cultural background and grounding in the subject matter to be taught," replied Robert S. Ward, "but that does not necessarily mean the abandonment of existing institutions. I feel that some might be converted into junior colleges, emphasizing vocational training."

#### APPOINTED AT SCHREINER

R. W. Carden from Elkader Junior College, Iowa, and E. P. Moss from Austin College have joined the faculty of Schreiner Institute, Texas. Schreiner has a capacity enrollment of 347 this fall.

#### NEW SOCIAL CENTER

A new social center in the form of a neat white bungalow greeted day students at Virginia Intermont College this fall. Intermont opened its fifty-seventh session with a capacity enrollment.

#### NEW ATHLETIC COACH

Fred Burger, formerly coach at Bonne Terre High School, is the newly appointed coach and athletic director at the Junior College at Flat River, Missouri.

#### CHANGES AT VINCENNES

Vincennes University Junior College, Indiana, has a normal enrollment this year of 119 students. There are three changes in the faculty: Dr. Walter Poesse of Shaker Heights, Ohio, replaces Dr. Antone Reinbold of Vincennes, who retired last June after 29 years of teaching in the college, in the department of modern languages; Miss Dorothy Miller of Indianapolis has been appointed instructor in biological sciences so that the former instructor, Miss

Medrith Jordan, may give full time to her duties as registrar; and John R. Miller, a certified public accountant, has been added to the faculty as instructor in accounting. The college—an institution partly supported by public funds—is conducting a survey in Knox County high schools to assist in determining what objectives should be met in a curriculum revision for the college.

#### SOUTHERN SEMINARY EXPANDS

Southern Seminary and Junior College, Virginia, in addition to its academic building built last summer, now has a beautiful building which houses the library, auditorium, little theater, and dramatic art studios. The library has five rooms and a seating capacity of 80.

#### SAINT THOMAS' PRESIDENT

The Rev. Joseph M. Griffin is the new president this fall of Saint Thomas Seminary, Connecticut. He succeeds the Rev. Henry J. O'Brien.

#### DEAN OF WOOD COLLEGE

George S. Boase, former head of the science department, has been appointed dean of Wood Junior College, Mississippi. He holds the master of science degree from Purdue University.

#### ADDS JUNIOR COLLEGE

Brown Military Academy at Pacific Beach, California, has added a junior college division, with freshman year beginning this fall.

#### NEW TEXAS PRESIDENT

T. B. Jones is the new president of Mary Allen Junior College, Texas, succeeding B. R. Smith, who died June 20.

## *From the Secretary's Desk*

### SELECTIVE SERVICE

Following the passage of the selective service bill by Congress there was for a time considerable uncertainty concerning the status of junior colleges and other institutions of collegiate grade. There was some doubt whether a strict construction of the law would provide the same deferment as for other college students. The American Council on Education and the American Association of Junior Colleges presented a strong case for the junior colleges, accompanied by a formal brief. When the interpretative instructions for selective service boards were issued, October 8, they included the following statement specifically including junior college students within the scope of the bill:

The term "college or university" shall include only an advanced educational institution which regularly grants to students who have satisfactorily passed prescribed courses of instruction, degrees in the arts or sciences (such as undergraduate or bachelor's degrees or master's, doctor's, professional, or other advanced degrees), and any junior college or other college which regularly grants to students certificates which are accepted by such advanced institutions as credit toward such degrees.

It is pointed out that a student who wishes deferment must ask for it. The regulation governing this stipulation is as follows:

347. *Conditions on student deferment.*—No registrant shall be placed in Class I-D or Class

I-E unless he meets all of the following conditions:

- a. He shall request that he be deferred from induction;
- b. He entered upon attendance in a college or university, as defined in paragraph 348 for the academic year 1940-1941, and before January 1, 1941;
- c. He is in substantially full-time attendance at such college or university and is there a bona fide student pursuing a course of instruction which the college or university requires be satisfactorily completed as a prerequisite to conferring degrees in the arts or sciences (such as undergraduate or bachelor's degrees or master's, doctor's, professional, or other advanced degrees), or as a prerequisite to conferring certificates which are accepted as a credit toward such degrees by colleges or universities which confer such degrees. The taking of a correspondence course shall not be cause for deferment for any registrant.

### AMERICAN JUNIOR COLLEGES

A few unsolicited comments from junior college executives and other educators concerning the new reference volume, *American Junior Colleges*:

"A magnificent contribution to the entire educational literature of the nation. I am sure the book will be of great value to many of us."—WEST VIRGINIA.

"The volume speaks with authority both in the statements that it makes and in its general appearance and set-up."—NEW YORK.

"Certainly a very significant and useful addition to the literature of this important subject. Introductory chapters are excellent in their analysis of the history, present situation, and problems."—ILLINOIS.

"I am sure it will take its place among the classics in the junior college field."—NEW HAMPSHIRE.

"The volume which you have edited on *American Junior Colleges* is a real achievement."—CALIFORNIA.

"It is, by all means, the most informative and useful book of its kind which I have seen with respect to the junior colleges."—MASSACHUSETTS.

"I appreciate having it and it will serve a very useful purpose in the Division of Higher Education. The book is rich in information

in a field which it is very important for us to be informed about."—WASHINGTON, D. C.

"It should prove to be a valuable book for junior college administrators, deans, and teachers."—ARIZONA.

"I am impressed with the importance of the junior college movement."—OHIO.

"This is a real contribution to the junior colleges of America and of special importance to education in general."—COLORADO.

"This book will be invaluable to all junior college people."—VIRGINIA.

"This monograph will be of inestimable service."—TEXAS.

"I think you have done a splendid job and are to be congratulated upon it."—WISCONSIN.

"It certainly fills a long felt need."—WASHINGTON, D. C.

#### LIBRARY COMMITTEE

The American Library Association has appointed a special committee to cooperate with the Commission on Junior College Terminal Education. Personnel of the committee is as follows: Foster E. Mohrhardt, librarian Washington and Lee University, Virginia, *Chairman*; Lois E. Engleman, librarian Frances Shimer Junior College, Illinois; Martha Gladys Johnson, librarian Mars Hill College, North Carolina; Wave L. Noggle, librarian Virginia Junior College, Minnesota; Helen F. Pierce, librarian Modesto Junior College, California.

#### TERMINAL CONFERENCES

During the latter part of September, the greater part of October, and the first of November the Executive Secretary was absent from Washington conducting the series of conferences on terminal education reported in the October issue. The schedule for these conferences was as follows:

- Sept. 28, Boston, Massachusetts
- Sept. 30, Hartford, Connecticut
- Oct. 5, Washington, D. C.
- Oct. 7, Charlotte, North Carolina
- Oct. 8, Atlanta, Georgia
- Oct. 9, Nashville, Tennessee
- Oct. 10, Jackson, Mississippi
- Oct. 11, Dallas, Texas
- Oct. 12, Los Angeles, California

- Oct. 17, San Luis Obispo, California
- Oct. 19, Stanford University, California
- Oct. 22, Portland, Oregon
- Oct. 24, Spokane, Washington
- Oct. 26, Odgen, Utah
- Oct. 28, Denver, Colorado
- Oct. 29, Topeka, Kansas
- Oct. 30, Boonville, Missouri
- Nov. 1, Urbana, Illinois
- Nov. 2, Highland Park, Michigan
- Nov. 13, New York City

The conference at Hartford was held in conjunction with the regular meeting of the Connecticut Junior College Conference; that at Los Angeles with the Southern California Junior College Association; that at San Luis Obispo with the Central California Junior College Association; that at Stanford University with the Northern California Junior College Association; that at Urbana with the University of Illinois Junior College Conference; and that at Highland Park with the Michigan Association of Junior Colleges. All other conferences were arranged especially to present the work of the Commission on Junior College Terminal Education to groups of administrators, faculty, students, and others interested in problems of junior college terminal education.

In addition the Executive Secretary spoke on the work of the Terminal Study to the faculty of San Bernardino Valley Junior College, California; to the Board of Directors of Western Personnel Service, Pasadena, California; and to faculty and students of Whitman College, Walla Walla, Washington.

#### ACCREDITATION CONFERENCE

The Executive Secretary represented the Association at a special conference on accreditation in higher education called by the American Council on Education at Washington, D. C., October 4 and 5, and spoke briefly on accrediting procedures and standards as related to junior colleges.

## Judging the New Books

CAMPBELL, OSCAR JAMES; VAN GUNDY, JUSTINE, and SHRODES, CAROLINE (Editors), *Patterns for Living*. New York, The Macmillan Company, 1940. xxii, 1306 pages.

Teachers of college English who have felt the need for suitable anthologies will be especially interested in *Patterns for Living*, designed as a foundation for a closely coordinated course in reading and writing. Unlike the conventional college rhetoric which emphasizes mechanics, this volume is primarily concerned with ideas. The editors, Professor Campbell of Columbia, Miss Van Gundy, formerly of the University of Wisconsin, now of Stockton Junior College, and Miss Shrodes, also of Stockton, believe that the student is justified in a utilitarian attitude toward his courses and that the English teacher should welcome the opportunity to make clear the "profoundly practical values to be found in literature." Therefore they have included in the anthology only selections of immediate interest to the student and of value to him in acquiring an understanding of major problems confronting him.

The plan of arrangement, neither chronological nor by literary type, might be said to be psychological, for the first section, "The Quest of the Individual for Personal Satisfaction," begins with selections dealing with simple sensory experiences and continues to those illustrating more complex satisfactions. The second section, "The Quest of the Individual for Adjustment to the Social Group," considers significant social is-

sues, such as ideas of liberty and democracy, the struggle for justice, and problems of war and peace.

Most of the material is from contemporary literature, but a number of classics are included. Illustrative of the significant use of new and old is the section on the struggle for justice in which a selection from *The Grapes of Wrath* is followed by *A Modest Proposal*. In addition to numerous essays, short stories, and poems, the anthology contains many generous, well-chosen excerpts from fiction and biography, and four complete dramas: Milne's *Mr. Pim Passes By*, Carroll's *Shadow and Substance*, Anderson's *Winterset*, and Toliver's *No More Peace!*

Several features rendering the work useful are: the grouping of the selections in each main division by literary type, the notes for reading and writing, the biographical notes, and the index of authors.

Attractively bound and printed in unusually clear type, the book will make a worthwhile addition to the personal library of any college student.

MARGARET BOYCE

Wellesley College

LOIS ENGLEMAN

Frances Shimer Junior College

HENRY ALBERT ADAMS, *Criteria for the Establishment of Public Junior Colleges in Kentucky*. University of Kentucky, Bulletin of the Bureau of School Service, Lexington, Kentucky, June, 1940. 156 pages.

In this doctoral dissertation the au-

thor makes a careful analysis of criteria proposed at different times during the past 20 years by 17 different "authorities," and then derives seven fundamental criteria which he applies to a half dozen possible junior college districts in Kentucky. One of these districts meets all criteria satisfactorily, two with one or two exceptions, while in three the author concludes public junior colleges would be inadvisable at the present time.

Concerning his criteria the author says: "It is readily conceded that it would be an impossible task to set up a group of criteria which would, if strictly adhered to, guarantee a successful public junior college. . . . It is assumed, however, that it is a reasonable task to set up criteria that can be used as a reliable guide in the establishment of public junior colleges which will generally prove successful."

Six of the fundamental criteria used are the following: (1) An average of 200 high school graduates annually; (2) an average of 1,300 students enrolled annually in the four-year high schools in the district; (3) a white population of 25,000; (4) an assessed valuation of \$23,000,000; (5) school indebtedness limited to 5 per cent of the assessed valuation; and (6) no public junior college to be located at a distance of less than 30 miles from any existing accredited public or private co-educational institution of higher learning. The seventh refers to standards to be reached by lower schools. The fourth would be reduced if partial state support were assumed.

Chapters I and II, on the development of the junior college movement, are based upon secondary sources. Chapter III deals with the history and present status of public education in Kentucky.

Chapter IV derives the seven criteria and Chapter V applies them in detail to Kentucky. Chapter VI, summarizing junior college legislation in 16 states, is based upon other published studies, some of them 10 years old or more, and is not recent enough to be dependable for present conditions. Chapter VII, "A Proposed Policy for Kentucky," suggests suitable legislation in the state. The author wisely recommends a survey by the state department of education prior to the establishment of any public junior college, the findings to be tested by the seven criteria interpreted flexibly, and followed by an election in the proposed district.

The most valuable part of the study for junior college students outside of Kentucky is the analysis of Chapter IV.

**McKEE FISK (Editor), *The Business Curriculum: Sixth Yearbook of the National Commercial Teachers Federation*.** Published by the Federation, Bowling Green, Kentucky. 1940. 456 pages.

Much credit is due the National Commercial Teachers Federation and their yearbook committee under the chairmanship of Dr. Fisk (formerly dean of Santa Ana Junior College, California) for producing this extensive volume full of recent information and judgments concerning all aspects of the very important field of business education. No less than 57 authors, six of them actively connected with junior colleges, contribute to the 54 chapters. Part I (20 chapters) deals with the principles of the curriculum; Part II (6 chapters) with curriculum construction; Part III (13 chapters) with case studies of individual business curricula; and Part IV (15 chapters) with the present status of teaching business subjects.

Included in Part IV are separate chapters on basic business subjects, vocational subjects, bookkeeping and accounting, business arithmetic, business correspondence, business law, consumer education, distributive education, economics, economic geography, everyday business, office practice and office machines, personality, shorthand and typewriting. Various types of schools are considered and every level of instruction is covered from the junior high school to the graduate school of business.

While junior college instructors in business education will find much of interest in most of the chapters, they will be particularly concerned with the three chapters dealing especially with the junior college. The editor, Dr. Fisk, contributes a thoughtful chapter (XI) of principles for the junior college business curriculum. After discussing junior college functions, establishment of programs, and obstacles to the program, he states and briefly characterizes 20 principles which "in the light of present practices and needs . . . appear to be justified." Byron S. Hollinshead and Peter P. Stapey of Scranton-Keystone College, Pennsylvania, in Chapter XXXIII, "The Business Curriculum in Junior Colleges," make a detailed analysis based upon catalogs of 52 institutions in 25 states. In the following chapter, "The Business Curriculum in California Junior Colleges," Eugene P. Brown and Virginia H. Moses of San Bernardino Valley Junior College report upon core curriculum plans, guidance, cooperative work, placement and follow-up, staff organization, provision for individual differences, equipment, and recent curriculum innovations in a variety of California institutions.

#### NEW PUBLICATIONS RECEIVED

EDWARD J. McNAMARA, *Secretarial Training*. Revised edition. Ronald Press, New York, 1940. 304 pages.

WILLIAM F. OGBURN and MEYER F. NIMKOFF, *Sociology*. Houghton Mifflin Co., Boston, 1940. 953 pages.

P. H. PEARSON, *Subjects and Story Plots*. Published by the author, Upsala College, East Orange, New Jersey, 1940. 95 pages.

SIDNEY L. PRESSEY, J. ELLIOTT JANNEY, and RAYMOND G. KUHLEN, *Life: A Psychological Survey*. Harper and Brothers, New York, 1939. 654 pages.

IRA DEA. REID, *In a Minor Key: Negro Youth in Story and Fact*. American Council on Education, Washington, D. C., 1940. 135 pages.

HANS SCHADEWALDT, *Polish Acts of Atrocity Against the German Minority in Poland*. German Library of Information, New York, 1940. 259 pages.

MAX SCHOEN, *The Psychology of Music*. Ronald Press, New York, 1940. 258 pages.

CHARLES E. SMITH and LYNN M. CASE, *A Short History of Western Civilization*. D. C. Heath & Co., Boston, 1940. 815 pages.

H. A. SPRAGUE, *A Decade of Progress in the Preparation of Secondary School Teachers*. Bureau of Publications, Teachers College, Columbia University, New York, 1940. 170 pages.

HUGH E. STELSON, *The Mathematics of Business: A Study of Mathematics for Personal, Civic, and Business Efficiency*. Houghton Mifflin Co., Boston, 1940. 464 pages.

KARL A. STILES, *Handbook of Microscopic Characteristics of Tissues and Organs*. Blakiston Co., Philadelphia, 1940. 148 pages.

V. T. THAYER (Chairman), *Mathematics in General Education: A Report of the Committee on the Functions of Mathematics in General Education for the Commission on Secondary School Curriculum*. D. Appleton-Century Co., New York, 1940. 423 pages.

JOSEPH TIFFIN, FREDERIC B. KNIGHT, and CHARLES C. JOSEY, *The Psychology of Normal People*. D. C. Heath & Co., Boston, 1940. 512 pages.

LOUIS WALDBAUER, *Theoretical Quantitative Analysis*. The Blakiston Company, Philadelphia, 1940. 248 pages.

S. DANA WEEDER, *Bundy's Anatomy and Physiology*. Seventh Edition. The Blakiston Company, Philadelphia, 1940. 490 pages.

LOUIS WIRTH, *Contemporary Social Problems: A Tentative Formulation for Teachers of Social Studies*. University of Chicago Press, Chicago, 1939. 68 pages.

JEREMIAH S. YOUNG, JOHN W. MANNING, and JOSEPH I. ARNOLD, *Government of the People: An Integrated Presentation of Its Political, Economic, and Social Functions*. D. C. Heath & Co., Boston, 1940. 830 pages.

## Bibliography on Junior Colleges\*

3811. HAYNES, BENJAMIN R., and JACKSON, HARRY P., *A History of Business Education in the United States*, South-Western Publishing Company, Cincinnati, 1935. 159 pages.  
Includes a chapter on "Business Education in the Junior Colleges" (pp. 116-24) which presents a brief history of the junior college, the business curricula in the junior college, and the opportunity for business education in the junior college.

3812. KLEIN, HERBERT, (Editor), *Propaganda!—The War for Men's Minds*, Los Angeles City College Press, Los Angeles, 1939. 103 pages.  
For review, see *Junior College Journal* (April 1940) 10:473.

3813. ILLINOIS TEACHER, "Money Grant for Junior College Study," *Illinois Teacher*, 28:165 (February 1940).  
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3814. JOHNSON, B. LAMAR, "The Implications of Democracy for the Junior College," *Bulletin of the National Association of Secondary School Principals*, 24:134-39 (February 1940).  
Attempts to answer the following questions: Does the junior college have a responsibility to the large body of high school graduates who are not planning to continue to a baccalaureate degree? If so, what is the responsibility? Is the junior college meeting this problem? How best can the junior college meet its responsibility? "The junior college has an opportunity to change the lives of millions of perplexed youth—youth who are out of work and out of school, youth who are today crowding our pool halls, street corners, and road houses rather than our classrooms, libraries and shops."

\* This is a continuation of *Bibliography on Junior Colleges*, by Walter C. Eells (United States Office of Education Bulletin [1930], No. 2), which contained the first 1600 titles of this numbered sequence. Assistance is requested from authors of publications which should be included.

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Announcement of grant for study of junior college terminal education.

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Report of recent growth of the junior college movement.

3818. JOURNAL OF THE AMERICAN ASSOCIATION OF COLLEGIATE REGISTRARS, "Enrollment in Junior Colleges," *Journal of the American Association of Collegiate Registrars*, 15:294-95 (April 1940).  
Data on enrollment in junior colleges in 1940.

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3820. KLEIN, A. J., "The Relations Between the Liberal Arts College, the Junior College, and the Professional School," *Educational Abstracts*, 5:111 (April 1940).  
Abstract of address of Byron S. Hollinshead, published in *Association of American Colleges Bulletin*, March 1940. See No. 3743.

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 Abstract of address by James P. Baxter, III, published in *Association of American Colleges Bulletin*, March 1940. See No. 3715.

3822. LINDSAY, FRANK B., "Analysis of Enrollments in Various Curriculums According to Size, Location, and Administrative Type of Junior College," *California Schools*, 11:121-24 (April 1940).  
 Gives total enrollment in semiprofessional and completion curricula and percentage of total enrollment in such curricula for 35 California public junior colleges. Shows that 46 per cent of 31,641 students are enrolled in such terminal courses.

3823. McCACKEN, C. C., *A Survey of Student Personnel Services in Fifty Colleges Affiliated with the Board of Christian Education of the Presbyterian Church in the United States of America*, Philadelphia, 1939. 2 vols., 111 pages (Mimeographed).  
 Includes three junior colleges, Blackburn and Lincoln in Illinois, and Westminster in Utah, but no separate data on these institutions or separate consideration of junior colleges as a group. Considers purposes of college student personnel work, selection and admission of students, orientation of freshmen, other pre-college guidance services, etc. Contains 17-page bibliography. Various guidance practices evaluated by two juries of specialists and compared with findings of North Central Association.

3824. McNUTT, W. S., "A New Experiment in the Democratization of Higher Education," *Education*, 60:48-54 (September 1939).  
 An outline of the organization, curriculum, and guidance set-up in the Lower Division of Louisiana State University.

3825. MALUEG, EVELYN, and SNYDER, LOUISE M., "Shorthand Success in College," *Journal of Business Education*, 15:17-18 (February 1940).  
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3826. MILLIKEN, MOZELLE, "Hotel and Restaurant Management," *National Business Education Quarterly*, 7:22-25 (May 1939).  
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3828. MUSIC EDUCATORS JOURNAL, "The Junior Colleges," *Music Educators Journal*, 26:12 (March 1940).  
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It is at the junior college level in the introductory courses that pedagogical problems have been most seriously considered. Some of the larger universities have become aware of a new condition in these courses and are beginning to devise new ways for dealing with it.—A. C. KREY, in *Journal of Higher Education*.

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